

Attachment A

Laboratory Data Report

ANALYTICAL REPORT

Job Number: 280-26964-1

Job Description: 995|Waimanalo Gulch LF

For:

Waste Management
Waimanalo Gulch Landfill
92-460 Farrington Highway
Kapolei, HI 96707

Attention: Mr. Justin Lottig



Approved for release.
Betsy A Sara
Project Manager II
4/12/2012 9:39 AM

Betsy A Sara
Project Manager II
betsy.sara@testamericainc.com
04/12/2012
Revision: 1

cc: Mr. Mark Hofferbert
Ms. Margie Thach

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002

Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



Table of Contents

Cover Title Page	1
Report Narrative	3
Executive Summary	5
Method Summary	7
Method / Analyst Summary	8
Sample Summary	9
Sample Results	10
Sample Datasheets	11
Data Qualifiers	23
QC Results	24
Qc Association Summary	25
Surrogate Recovery Report	31
Qc Reports	32
Laboratory Chronicle	64
Subcontracted Data	71
Client Chain of Custody	101
Sample Receipt Checklist	107

CASE NARRATIVE

Client: TestAmerica Laboratories, Inc.

Project: 995|Waimanalo Gulch LF

Report Number: 280-26964-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The samples were received on 03/23/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the coolers at receipt were 4.8C and 5.1C.

The sampling date and sampling time were not recorded on the Chain of custody for sample DETENTION BASIN. The sampling date and sampling time were obtained from the sample bottle labels. The client was notified.

Holding Times

All holding times were met.

Method Blanks

The Method 625 surrogate recovery of 2,4,6-Tribromophenol in the Method Blank associated with prep batch 113443 was below the lower control limit at 43% (control limits 50%-120%) Because all Method 625 surrogate recoveries were within control limits for the associated samples, corrective action was deemed unnecessary.

HEM Method 1664A was detected in the Method Blank below the project established reporting limit. No corrective action is taken for any values in Method Blanks that are below the requested reporting limits. The Method Blank data are included at the end of this report.

All other Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

The Method 625 LCSD exhibited recoveries of Bis(2-ethylhexyl) phthalate, 2,4-Dichlorophenol, Diethyl phthalate, 2,4-Dimethylphenol, 2,4-Dinitrotoluene, Di-n-octyl phthalate and 2-Nitrophenol above the upper control limits. In addition, the RPD results were outside the RPD limits for Benzidine, Bis(2-ethylhexyl) phthalate, 2,4-Dichlorophenol, 2,4-Dimethylphenol and 2-Nitrophenol. Because these were not target compounds, corrective action was deemed unnecessary. In addition, all samples were non-detect for all target Method 625 compounds.

All other Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The method required MS/MSD could not be performed for Method 625 due to insufficient sample volume.

The method required MS/MSD could not be performed for Method 1664A due to insufficient sample volume, however, a LCS/LCSD pair was analyzed to demonstrate method precision and accuracy.

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Ammonia Method 350.1, Total Kjeldahl Nitrogen Method 351.2 and Total Phosphorus Method 365.1. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

All other MS and MSD samples were within established control limits.

General Comments

The analyses for Biochemical Oxygen Demand (BOD) and Hexavalent Chromium were performed at Food Quality Lab.

FQL

3375 Koapaka Street, G314

Honolulu, HI 96819

Phone: 808.839.9444

Report Revision

This submission was revised to correct the primary contact information on the coverpage. Due to a laboratory error, the incorrect contact was referenced as the primary on the original report.

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-26964-1

Lab Sample ID Analyte	Client Sample ID DETENTION BASIN	Result	Qualifier	Reporting Limit	Units	Method
280-26964-1						
Field pH	8.35			SU		Field Sampling
HEM	1.5	J B		5.0	mg/L	1664A
Ammonia	4.5			0.10	mg/L	350.1
Nitrogen, Kjeldahl	0.71			0.50	mg/L	351.2
Nitrate Nitrite as N	5.9			0.10	mg/L	353.2
Phosphorus, Total	0.28			0.050	mg/L	365.1
Chemical Oxygen Demand	18	J		20	mg/L	410.4
Total Suspended Solids	50			4.0	mg/L	SM 2540D
Nitrogen, Total	6.6			0.10	mg/L	Total Nitrogen
<i>Total Recoverable</i>						
Iron	4.4			0.10	mg/L	200.7 Rev 4.4
Lead	0.0055	J		0.0090	mg/L	200.7 Rev 4.4
Zinc	0.022			0.020	mg/L	200.7 Rev 4.4
280-26964-2	CULVERT					
Field pH	8.41			SU		Field Sampling
HEM	3.4	J B		5.0	mg/L	1664A
Nitrogen, Kjeldahl	0.96			0.50	mg/L	351.2
Nitrate Nitrite as N	3.2			0.10	mg/L	353.2
Phosphorus, Total	0.22			0.050	mg/L	365.1
Chemical Oxygen Demand	21			20	mg/L	410.4
Total Suspended Solids	100			4.0	mg/L	SM 2540D
Nitrogen, Total	4.2			0.10	mg/L	Total Nitrogen
<i>Total Recoverable</i>						
Iron	2.1			0.10	mg/L	200.7 Rev 4.4
Zinc	0.014	J		0.020	mg/L	200.7 Rev 4.4

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-26964-1

Lab Sample ID Analyte	Client Sample ID Analyte	Result	Qualifier	Reporting Limit	Units	Method
280-26964-3	UPCANYON					
Mercury		0.000042	J	0.00020	mg/L	245.1
Field pH		8.30			SU	Field Sampling
HEM		1.9	J B	5.0	mg/L	1664A
Ammonia		0.31		0.10	mg/L	350.1
Nitrogen, Kjeldahl		1.0		0.50	mg/L	351.2
Nitrate Nitrite as N		2.5		0.10	mg/L	353.2
Phosphorus, Total		0.33		0.050	mg/L	365.1
Chemical Oxygen Demand		44		20	mg/L	410.4
Total Suspended Solids		460		4.0	mg/L	SM 2540D
Nitrogen, Total		3.5		0.10	mg/L	Total Nitrogen
<i>Total Recoverable</i>						
Iron		60		0.10	mg/L	200.7 Rev 4.4
Lead		0.0050	J	0.0090	mg/L	200.7 Rev 4.4
Zinc		0.068		0.020	mg/L	200.7 Rev 4.4

METHOD SUMMARY

Client: Waste Management

Job Number: 280-26964-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
General Sub Contract Method	Honolulu	Subcontract	
Semivolatile Organic Compounds (GC/MS)	TAL DEN	40CFR136A 625	
Liquid-Liquid Extraction	TAL DEN		40CFR136A 625
Metals (ICP)	TAL DEN	EPA 200.7 Rev 4.4	
Preparation, Total Recoverable Metals	TAL DEN		EPA 200.7
Mercury (CVAA)	TAL DEN	EPA 245.1	
Preparation, Mercury	TAL DEN		EPA 245.1
HEM and SGT-HEM	TAL DEN	1664A 1664A	
HEM and SGT-HEM (SPE)	TAL DEN		1664A 1664A
Nitrogen, Ammonia	TAL DEN	MCAWW 350.1	
Nitrogen, Total Kjeldahl	TAL DEN	MCAWW 351.2	
Nitrogen, Total Kjeldahl	TAL DEN		MCAWW 351.2
Nitrogen, Nitrate-Nitrite	TAL DEN	MCAWW 353.2	
Phosphorus, Total	TAL DEN	EPA 365.1	
Phosphorus, Total	TAL DEN		MCAWW 365.2/365.3/365
COD	TAL DEN	MCAWW 410.4	
Solids, Total Suspended (TSS)	TAL DEN	SM SM 2540D	
Nitrogen, Total	TAL DEN	EPA Total Nitrogen	
Field Sampling	TAL DEN	EPA Field Sampling	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-26964-1

Method	Analyst	Analyst ID
40CFR136A 625	Hoffman, Michael G	MGH
EPA 200.7 Rev 4.4	Bowen, Heidi E	HEB
EPA 245.1	Rawlings, Brendon L	BLR
EPA Field Sampling	Field, Sampler	FS
1664A 1664A	Elkin, David	DE
MCAWW 350.1	Scott, Samantha J	SJS
MCAWW 351.2	Woolley, Mark	MW
MCAWW 353.2	Scott, Samantha J	SJS
EPA 365.1	Taylor, Juli M	JMT
MCAWW 410.4	Allen, Andrew J	AJA
SM SM 2540D	Allen, Andrew J	AJA
EPA Total Nitrogen	Bandy, Darlene F	DFB

SAMPLE SUMMARY

Client: Waste Management

Job Number: 280-26964-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-26964-1	DETENTION BASIN	Water	03/21/2012 1013	03/23/2012 0900
280-26964-2	CULVERT	Water	03/21/2012 1036	03/23/2012 0900
280-26964-3	UPCANYON	Water	03/21/2012 1023	03/23/2012 0900

SAMPLE RESULTS

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Client Sample ID: DETENTION BASINLab Sample ID: 280-26964-1
Client Matrix: WaterDate Sampled: 03/21/2012 1013
Date Received: 03/23/2012 0900**625 Semivolatile Organic Compounds (GC/MS)**

Analysis Method:	625	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Prep Method:	625	Prep Batch:	280-113443	Lab File ID:	D9775.D
Dilution:	1.0			Initial Weight/Volume:	1044.7 uL
Analysis Date:	04/02/2012 2156			Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Alpha-Terpineol	ND		0.0019	0.010
Benzoic acid	ND		0.0096	0.050
p-Cresol	ND		0.00024	0.010
Pentachlorophenol	ND		0.019	0.060
Phenol	ND		0.0019	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		36 - 120
2-Fluorophenol	87		30 - 120
2,4,6-Tribromophenol	65		50 - 120
Nitrobenzene-d5	87		45 - 120
Phenol-d5	94		36 - 120
Terphenyl-d14	106		52 - 120

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Client Sample ID: **CULVERT**Lab Sample ID: 280-26964-2
Client Matrix: WaterDate Sampled: 03/21/2012 1036
Date Received: 03/23/2012 0900**625 Semivolatile Organic Compounds (GC/MS)**

Analysis Method:	625	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Prep Method:	625	Prep Batch:	280-113443	Lab File ID:	D9776.D
Dilution:	1.0			Initial Weight/Volume:	972.9 uL
Analysis Date:	04/02/2012 2215			Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Alpha-Terpineol	ND		0.0021	0.010
Benzoic acid	ND		0.010	0.050
p-Cresol	ND		0.00026	0.010
Pentachlorophenol	ND		0.021	0.060
Phenol	ND		0.0021	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	84		36 - 120
2-Fluorophenol	84		30 - 120
2,4,6-Tribromophenol	77		50 - 120
Nitrobenzene-d5	88		45 - 120
Phenol-d5	92		36 - 120
Terphenyl-d14	116		52 - 120

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Client Sample ID: **UPCANYON**Lab Sample ID: 280-26964-3
Client Matrix: WaterDate Sampled: 03/21/2012 1023
Date Received: 03/23/2012 0900**625 Semivolatile Organic Compounds (GC/MS)**

Analysis Method:	625	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Prep Method:	625	Prep Batch:	280-113443	Lab File ID:	D9777.D
Dilution:	1.0			Initial Weight/Volume:	953.4 mL
Analysis Date:	04/02/2012 2234			Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL

Analyte	Result (mg/L)	Qualifier	MDL	RL
Alpha-Terpineol	ND		0.0021	0.010
Benzoic acid	ND		0.010	0.050
p-Cresol	ND		0.00026	0.010
Pentachlorophenol	ND		0.021	0.060
Phenol	ND		0.0021	0.010

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	78		36 - 120
2-Fluorophenol	62		30 - 120
2,4,6-Tribromophenol	82		50 - 120
Nitrobenzene-d5	85		45 - 120
Phenol-d5	70		36 - 120
Terphenyl-d14	89		52 - 120

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Client Sample ID: DETENTION BASINLab Sample ID: 280-26964-1
Client Matrix: WaterDate Sampled: 03/21/2012 1013
Date Received: 03/23/2012 0900**200.7 Rev 4.4 Metals (ICP)-Total Recoverable**

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-113314	Instrument ID:	MT_026
Prep Method:	200.7	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1740			Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	4.4		0.022	0.10
Lead	0.0055	J	0.0026	0.0090
Selenium	ND		0.0049	0.015
Zinc	0.022		0.0045	0.020
Silver	ND		0.00093	0.010

245.1 Mercury (CVAA)

Analysis Method:	245.1	Analysis Batch:	280-113693	Instrument ID:	MT_034
Prep Method:	245.1	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1535			Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000027	0.00020

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Client Sample ID: CULVERTLab Sample ID: 280-26964-2
Client Matrix: WaterDate Sampled: 03/21/2012 1036
Date Received: 03/23/2012 0900**200.7 Rev 4.4 Metals (ICP)-Total Recoverable**

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-113314	Instrument ID:	MT_026
Prep Method:	200.7	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1742			Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	2.1		0.022	0.10
Lead	ND		0.0026	0.0090
Selenium	ND		0.0049	0.015
Zinc	0.014	J	0.0045	0.020
Silver	ND		0.00093	0.010

245.1 Mercury (CVAA)

Analysis Method:	245.1	Analysis Batch:	280-113693	Instrument ID:	MT_034
Prep Method:	245.1	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1542			Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	ND		0.000027	0.00020

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Client Sample ID: UPCANYON

Lab Sample ID: 280-26964-3

Date Sampled: 03/21/2012 1023

Client Matrix: Water

Date Received: 03/23/2012 0900

200.7 Rev 4.4 Metals (ICP)-Total Recoverable

Analysis Method:	200.7 Rev 4.4	Analysis Batch:	280-113314	Instrument ID:	MT_026
Prep Method:	200.7	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1745			Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	60		0.022	0.10
Lead	0.0050	J	0.0026	0.0090
Selenium	ND		0.0049	0.015
Zinc	0.068		0.0045	0.020
Silver	ND		0.00093	0.010

245.1 Mercury (CVAA)

Analysis Method:	245.1	Analysis Batch:	280-113693	Instrument ID:	MT_034
Prep Method:	245.1	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0			Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1544			Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Mercury	0.000042	J	0.000027	0.00020

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

General Chemistry**Client Sample ID:** DETENTION BASIN

Lab Sample ID: 280-26964-1

Date Sampled: 03/21/2012 1013

Client Matrix: Water

Date Received: 03/23/2012 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	1.5	J B	mg/L	1.3	5.0	1.0	1664A
	Analysis Batch: 280-113532		Analysis Date: 03/29/2012 0950				
	Prep Batch: 280-113523		Prep Date: 03/29/2012 0950				
Ammonia	4.5		mg/L	0.022	0.10	1.0	350.1
	Analysis Batch: 280-113596		Analysis Date: 03/29/2012 1421				
Nitrogen, Kjeldahl	0.71		mg/L	0.077	0.50	1.0	351.2
	Analysis Batch: 280-114082		Analysis Date: 04/03/2012 1347				
	Prep Batch: 280-113968		Prep Date: 04/02/2012 1522				
Nitrate Nitrite as N	5.9		mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-113600		Analysis Date: 03/29/2012 1421				
Phosphorus, Total	0.28		mg/L	0.0050	0.050	1.0	365.1
	Analysis Batch: 280-113979		Analysis Date: 04/02/2012 1653				
	Prep Batch: 280-113928		Prep Date: 04/02/2012 1232				
Chemical Oxygen Demand	18	J	mg/L	4.1	20	1.0	410.4
	Analysis Batch: 280-113353		Analysis Date: 03/28/2012 1104				
Total Suspended Solids	50		mg/L	1.1	4.0	1.0	SM 2540D
	Analysis Batch: 280-113184		Analysis Date: 03/27/2012 0845				
Nitrogen, Total	6.6		mg/L	0.042	0.10	1.0	Total Nitrogen
	Analysis Batch: 280-114134		Analysis Date: 04/03/2012 1742				

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

General Chemistry**Client Sample ID:** CULVERT

Lab Sample ID: 280-26964-2

Date Sampled: 03/21/2012 1036

Client Matrix: Water

Date Received: 03/23/2012 0900

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	3.4	J B	mg/L	1.8	5.0	1.0	1664A
	Analysis Batch: 280-113532		Analysis Date:	03/29/2012 0950			
	Prep Batch: 280-113523		Prep Date:	03/29/2012 0950			
Ammonia	ND		mg/L	0.022	0.10	1.0	350.1
	Analysis Batch: 280-113596		Analysis Date:	03/29/2012 1342			
Nitrogen, Kjeldahl	0.96		mg/L	0.077	0.50	1.0	351.2
	Analysis Batch: 280-114082		Analysis Date:	04/03/2012 1348			
	Prep Batch: 280-113968		Prep Date:	04/02/2012 1522			
Nitrate Nitrite as N	3.2		mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-113600		Analysis Date:	03/29/2012 1342			
Phosphorus, Total	0.22		mg/L	0.0050	0.050	1.0	365.1
	Analysis Batch: 280-113979		Analysis Date:	04/02/2012 1653			
	Prep Batch: 280-113928		Prep Date:	04/02/2012 1232			
Chemical Oxygen Demand	21		mg/L	4.1	20	1.0	410.4
	Analysis Batch: 280-113353		Analysis Date:	03/28/2012 1104			
Total Suspended Solids	100		mg/L	1.1	4.0	1.0	SM 2540D
	Analysis Batch: 280-113184		Analysis Date:	03/27/2012 0845			
Nitrogen, Total	4.2		mg/L	0.042	0.10	1.0	Total Nitrogen
	Analysis Batch: 280-114134		Analysis Date:	04/03/2012 1742			

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

General Chemistry

Client Sample ID:	UPCANYON						
Lab Sample ID:	280-26964-3						
Client Matrix:	Water						
Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	1.9	J B	mg/L	1.3	5.0	1.0	1664A
	Analysis Batch: 280-113532		Analysis Date: 03/29/2012 0950				
	Prep Batch: 280-113523		Prep Date: 03/29/2012 0950				
Ammonia	0.31		mg/L	0.022	0.10	1.0	350.1
	Analysis Batch: 280-113596		Analysis Date: 03/29/2012 1344				
Nitrogen, Kjeldahl	1.0		mg/L	0.077	0.50	1.0	351.2
	Analysis Batch: 280-114082		Analysis Date: 04/03/2012 1350				
	Prep Batch: 280-113968		Prep Date: 04/02/2012 1522				
Nitrate Nitrite as N	2.5		mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-113600		Analysis Date: 03/29/2012 1344				
Phosphorus, Total	0.33		mg/L	0.0050	0.050	1.0	365.1
	Analysis Batch: 280-113979		Analysis Date: 04/02/2012 1653				
	Prep Batch: 280-113928		Prep Date: 04/02/2012 1232				
Chemical Oxygen Demand	44		mg/L	4.1	20	1.0	410.4
	Analysis Batch: 280-113353		Analysis Date: 03/28/2012 1104				
Total Suspended Solids	460		mg/L	3.7	4.0	1.0	SM 2540D
	Analysis Batch: 280-113184		Analysis Date: 03/27/2012 0845				
Nitrogen, Total	3.5		mg/L	0.042	0.10	1.0	Total Nitrogen
	Analysis Batch: 280-114134		Analysis Date: 04/03/2012 1742				

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Field Service / Mobile Lab**Client Sample ID:** DETENTION BASIN

Lab Sample ID: 280-26964-1

Date Sampled: 03/21/2012 1013

Client Matrix: Water

Date Received: 03/23/2012 0900

Analyte	Result	Qual	Units	Dil	Analysis	Date Analyzed	
					Method	Batch	Date Prepared
Field pH	8.35		SU	1.0	Field Sampling	280-113011	03/21/2012 1013

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Field Service / Mobile Lab**Client Sample ID:** CULVERT

Lab Sample ID: 280-26964-2

Date Sampled: 03/21/2012 1036

Client Matrix: Water

Date Received: 03/23/2012 0900

Analyte	Result	Qual	Units	Dil	Analysis		Date Analyzed
					Method	Batch	Date Prepared
Field pH	8.41		SU	1.0	Field Sampling	280-113011	03/21/2012 1036

Analytical Data

Client: Waste Management

Job Number: 280-26964-1

Field Service / Mobile Lab**Client Sample ID:** UPCANYON

Lab Sample ID: 280-26964-3

Client Matrix: Water Date Sampled: 03/21/2012 1023

Date Received: 03/23/2012 0900

Analyte	Result	Qual	Units	Dil	Analysis	Date Analyzed	
					Method	Batch	Date Prepared
Field pH	8.30		SU	1.0	Field Sampling	280-113011	03/21/2012 1023

DATA REPORTING QUALIFIERS

Client: Waste Management

Job Number: 280-26964-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	Recovery or RPD exceeds control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	X	Surrogate is outside control limits
Metals		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	B	Compound was found in the blank and sample.
	F	MS/MSD Recovery or RPD exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-113443					
LCS 280-113443/2-A	Lab Control Sample	T	Water	625	
LCSD 280-113443/3-A	Lab Control Sample Duplicate	T	Water	625	
MB 280-113443/1-A	Method Blank	T	Water	625	
280-26964-1	DETENTION BASIN	T	Water	625	
280-26964-2	CULVERT	T	Water	625	
280-26964-3	UPCANYON	T	Water	625	
Analysis Batch: 280-114019					
LCS 280-113443/2-A	Lab Control Sample	T	Water	625	280-113443
LCSD 280-113443/3-A	Lab Control Sample Duplicate	T	Water	625	280-113443
MB 280-113443/1-A	Method Blank	T	Water	625	280-113443
280-26964-1	DETENTION BASIN	T	Water	625	280-113443
280-26964-2	CULVERT	T	Water	625	280-113443
280-26964-3	UPCANYON	T	Water	625	280-113443

Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-112986					
LCS 280-112986/2-A	Lab Control Sample	R	Water	200.7	
MB 280-112986/1-A	Method Blank	R	Water	200.7	
280-26959-B-2-B MS	Matrix Spike	R	Water	200.7	
280-26959-B-2-C MSD	Matrix Spike Duplicate	R	Water	200.7	
280-26964-1	DETENTION BASIN	R	Water	200.7	
280-26964-2	CULVERT	R	Water	200.7	
280-26964-3	UPCANYON	R	Water	200.7	
Analysis Batch:280-113314					
LCS 280-112986/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-112986
MB 280-112986/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-112986
280-26959-B-2-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-112986
280-26959-B-2-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-112986
280-26964-1	DETENTION BASIN	R	Water	200.7 Rev 4.4	280-112986
280-26964-2	CULVERT	R	Water	200.7 Rev 4.4	280-112986
280-26964-3	UPCANYON	R	Water	200.7 Rev 4.4	280-112986
Prep Batch: 280-113392					
LCS 280-113392/2-A	Lab Control Sample	T	Water	245.1	
MB 280-113392/1-A	Method Blank	T	Water	245.1	
280-26964-1	DETENTION BASIN	T	Water	245.1	
280-26964-1MS	Matrix Spike	T	Water	245.1	
280-26964-1MSD	Matrix Spike Duplicate	T	Water	245.1	
280-26964-2	CULVERT	T	Water	245.1	
280-26964-3	UPCANYON	T	Water	245.1	
Analysis Batch:280-113693					
LCS 280-113392/2-A	Lab Control Sample	T	Water	245.1	280-113392
MB 280-113392/1-A	Method Blank	T	Water	245.1	280-113392
280-26964-1	DETENTION BASIN	T	Water	245.1	280-113392
280-26964-1MS	Matrix Spike	T	Water	245.1	280-113392
280-26964-1MSD	Matrix Spike Duplicate	T	Water	245.1	280-113392
280-26964-2	CULVERT	T	Water	245.1	280-113392
280-26964-3	UPCANYON	T	Water	245.1	280-113392

Report Basis

R = Total Recoverable

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Field Service / Mobile Lab					
Analysis Batch:280-113011					
280-26964-1	DETENTION BASIN	T	Water	Field Sampling	
280-26964-2	CULVERT	T	Water	Field Sampling	
280-26964-3	UPCANYON	T	Water	Field Sampling	

Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-113184					
LCS 280-113184/2	Lab Control Sample	T	Water	SM 2540D	
LCSD 280-113184/3	Lab Control Sample Duplicate	T	Water	SM 2540D	
MB 280-113184/1	Method Blank	T	Water	SM 2540D	
280-26932-A-7 DU	Duplicate	T	Water	SM 2540D	
280-26964-1	DETENTION BASIN	T	Water	SM 2540D	
280-26964-2	CULVERT	T	Water	SM 2540D	
280-26964-3	UPCANYON	T	Water	SM 2540D	
Analysis Batch:280-113353					
LCS 280-113353/3	Lab Control Sample	T	Water	410.4	
LCSD 280-113353/4	Lab Control Sample Duplicate	T	Water	410.4	
MB 280-113353/5	Method Blank	T	Water	410.4	
280-26920-E-1 MS	Matrix Spike	T	Water	410.4	
280-26920-E-1 MSD	Matrix Spike Duplicate	T	Water	410.4	
280-26964-1	DETENTION BASIN	T	Water	410.4	
280-26964-2	CULVERT	T	Water	410.4	
280-26964-3	UPCANYON	T	Water	410.4	
Prep Batch: 280-113523					
LCS 280-113523/2-A	Lab Control Sample	T	Water	1664A	
LCSD 280-113523/3-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-113523/1-A	Method Blank	T	Water	1664A	
280-26964-1	DETENTION BASIN	T	Water	1664A	
280-26964-2	CULVERT	T	Water	1664A	
280-26964-3	UPCANYON	T	Water	1664A	
Analysis Batch:280-113532					
LCS 280-113523/2-A	Lab Control Sample	T	Water	1664A	280-113523
LCSD 280-113523/3-A	Lab Control Sample Duplicate	T	Water	1664A	280-113523
MB 280-113523/1-A	Method Blank	T	Water	1664A	280-113523
280-26964-1	DETENTION BASIN	T	Water	1664A	280-113523
280-26964-2	CULVERT	T	Water	1664A	280-113523
280-26964-3	UPCANYON	T	Water	1664A	280-113523

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-113596					
LCS 280-113596/130	Lab Control Sample	T	Water	350.1	
LCS 280-113596/98	Lab Control Sample	T	Water	350.1	
LCSD 280-113596/131	Lab Control Sample Duplicate	T	Water	350.1	
LCSD 280-113596/99	Lab Control Sample Duplicate	T	Water	350.1	
MB 280-113596/117	Method Blank	T	Water	350.1	
MB 280-113596/129	Method Blank	T	Water	350.1	
MB 280-113596/97	Method Blank	T	Water	350.1	
280-26950-B-6 MS	Matrix Spike	T	Water	350.1	
280-26950-B-6 MSD	Matrix Spike Duplicate	T	Water	350.1	
280-26964-1	DETENTION BASIN	T	Water	350.1	
280-26964-2	CULVERT	T	Water	350.1	
280-26964-3	UPCANYON	T	Water	350.1	
280-26989-B-1 MS	Matrix Spike	T	Water	350.1	
280-26989-B-1 MSD	Matrix Spike Duplicate	T	Water	350.1	
Analysis Batch:280-113600					
LCS 280-113600/130	Lab Control Sample	T	Water	353.2	
LCS 280-113600/21	Lab Control Sample	T	Water	353.2	
LCS 280-113600/98	Lab Control Sample	T	Water	353.2	
LCSD 280-113600/131	Lab Control Sample Duplicate	T	Water	353.2	
LCSD 280-113600/22	Lab Control Sample Duplicate	T	Water	353.2	
LCSD 280-113600/99	Lab Control Sample Duplicate	T	Water	353.2	
MB 280-113600/117	Method Blank	T	Water	353.2	
MB 280-113600/129	Method Blank	T	Water	353.2	
MB 280-113600/20	Method Blank	T	Water	353.2	
MB 280-113600/97	Method Blank	T	Water	353.2	
280-26930-B-1 MS	Matrix Spike	T	Water	353.2	
280-26930-B-1 MSD	Matrix Spike Duplicate	T	Water	353.2	
280-26964-1	DETENTION BASIN	T	Water	353.2	
280-26964-2	CULVERT	T	Water	353.2	
280-26964-3	UPCANYON	T	Water	353.2	
280-26989-B-1 MS	Matrix Spike	T	Water	353.2	
280-26989-B-1 MSD	Matrix Spike Duplicate	T	Water	353.2	
Prep Batch: 280-113928					
LCS 280-113928/1-A	Lab Control Sample	T	Water	365.2/365.3/365	
LCSD 280-113928/2-A	Lab Control Sample Duplicate	T	Water	365.2/365.3/365	
MB 280-113928/3-A	Method Blank	T	Water	365.2/365.3/365	
280-26961-A-1-B MS	Matrix Spike	T	Water	365.2/365.3/365	
280-26961-A-1-C MSD	Matrix Spike Duplicate	T	Water	365.2/365.3/365	
280-26964-1	DETENTION BASIN	T	Water	365.2/365.3/365	
280-26964-2	CULVERT	T	Water	365.2/365.3/365	
280-26964-2MS	Matrix Spike	T	Water	365.2/365.3/365	
280-26964-2MSD	Matrix Spike Duplicate	T	Water	365.2/365.3/365	
280-26964-3	UPCANYON	T	Water	365.2/365.3/365	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-113968					
LCS 280-113968/1-A	Lab Control Sample	T	Water	351.2	
LCSD 280-113968/2-A	Lab Control Sample Duplicate	T	Water	351.2	
MB 280-113968/3-A	Method Blank	T	Water	351.2	
280-26961-B-6-B MS	Matrix Spike	T	Water	351.2	
280-26961-B-6-C MSD	Matrix Spike Duplicate	T	Water	351.2	
280-26964-1	DETENTION BASIN	T	Water	351.2	
280-26964-2	CULVERT	T	Water	351.2	
280-26964-3	UPCANYON	T	Water	351.2	
Analysis Batch:280-113979					
LCS 280-113928/1-A	Lab Control Sample	T	Water	365.1	280-113928
LCSD 280-113928/2-A	Lab Control Sample Duplicate	T	Water	365.1	280-113928
MB 280-113928/3-A	Method Blank	T	Water	365.1	280-113928
280-26961-A-1-B MS	Matrix Spike	T	Water	365.1	280-113928
280-26961-A-1-C MSD	Matrix Spike Duplicate	T	Water	365.1	280-113928
280-26964-1	DETENTION BASIN	T	Water	365.1	280-113928
280-26964-2	CULVERT	T	Water	365.1	280-113928
280-26964-2MS	Matrix Spike	T	Water	365.1	280-113928
280-26964-2MSD	Matrix Spike Duplicate	T	Water	365.1	280-113928
280-26964-3	UPCANYON	T	Water	365.1	280-113928
Analysis Batch:280-114082					
LCS 280-113968/1-A	Lab Control Sample	T	Water	351.2	280-113968
LCSD 280-113968/2-A	Lab Control Sample Duplicate	T	Water	351.2	280-113968
MB 280-113968/3-A	Method Blank	T	Water	351.2	280-113968
280-26961-B-6-B MS	Matrix Spike	T	Water	351.2	280-113968
280-26961-B-6-C MSD	Matrix Spike Duplicate	T	Water	351.2	280-113968
280-26964-1	DETENTION BASIN	T	Water	351.2	280-113968
280-26964-2	CULVERT	T	Water	351.2	280-113968
280-26964-3	UPCANYON	T	Water	351.2	280-113968
Analysis Batch:280-114134					
MB 280-114134/1	Method Blank	T	Water	Total Nitrogen	
280-26964-1	DETENTION BASIN	T	Water	Total Nitrogen	
280-26964-2	CULVERT	T	Water	Total Nitrogen	
280-26964-3	UPCANYON	T	Water	Total Nitrogen	

Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Surrogate Recovery Report**625 Semivolatile Organic Compounds (GC/MS)****Client Matrix: Water**

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	TBP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
280-26964-1	DETENTION BASIN	86	87	65	87	94	106
280-26964-2	CULVERT	84	84	77	88	92	116
280-26964-3	UPCANYON	78	62	82	85	70	89
MB 280-113443/1-A		82	92	43X	93	96	114
LCS 280-113443/2-A		87	92	102	93	98	100
LCSD		95	89	108	91	87	106
280-113443/3-A							

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	36-120
2FP = 2-Fluorophenol	30-120
TBP = 2,4,6-Tribromophenol	50-120
NBZ = Nitrobenzene-d5	45-120
PHL = Phenol-d5	36-120
TPH = Terphenyl-d14	52-120

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113443**Method: 625****Preparation: 625**

Lab Sample ID:	MB 280-113443/1-A	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Client Matrix:	Water	Prep Batch:	280-113443	Lab File ID:	D9774.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/02/2012 2137	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Alpha-Terpineol	ND		0.0020	0.010
Benzoic acid	ND		0.010	0.050
p-Cresol	ND		0.00025	0.010
Pentachlorophenol	ND		0.020	0.060
Phenol	ND		0.0020	0.010
Surrogate	% Rec		Acceptance Limits	
2-Fluorobiphenyl	82		36 - 120	
2-Fluorophenol	92		30 - 120	
2,4,6-Tribromophenol	43	X	50 - 120	
Nitrobenzene-d5	93		45 - 120	
Phenol-d5	96		36 - 120	
Terphenyl-d14	114		52 - 120	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113443**

**Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-113443/2-A	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Client Matrix:	Water	Prep Batch:	280-113443	Lab File ID:	D9746.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/02/2012 1258	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113443/3-A	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Client Matrix:	Water	Prep Batch:	280-113443	Lab File ID:	D9747.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/02/2012 1317	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec.						
	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Acenaphthene	89	94	47 - 120	6	30		
Acenaphthylene	93	99	33 - 120	6	30		
Anthracene	98	102	52 - 120	4	30		
Benzidine	42	22	10 - 218	63	50		J *
Benzo[a]anthracene	97	102	54 - 120	6	30		
Benzo[b]fluoranthene	94	92	51 - 120	2	90		
Benzo[k]fluoranthene	91	102	49 - 120	11	50		
Benzo[a]pyrene	80	84	39 - 120	6	73		
Bis(2-chloroethoxy)methane	90	119	50 - 120	28	30		
Bis(2-chloroethyl)ether	87	98	35 - 120	12	30		
Bis(2-ethylhexyl) phthalate	104	172	56 - 120	49	30		*
4-Bromophenyl phenyl ether	95	101	53 - 120	6	34		
Butyl benzyl phthalate	99	112	53 - 120	12	30		
4-Chloro-3-methylphenol	100	101	57 - 120	1	30		
2-Chloronaphthalene	85	91	60 - 118	7	30		
2-Chlorophenol	93	99	34 - 120	7	30		
4-Chlorophenyl phenyl ether	91	100	51 - 120	10	30		
Chrysene	99	103	51 - 120	4	30		
Dibenz(a,h)anthracene	77	80	45 - 120	4	78		
Di-n-butyl phthalate	101	108	57 - 118	7	30		
1,2-Dichlorobenzene	72	63	32 - 120	14	42		
1,3-Dichlorobenzene	69	57	23 - 120	19	47		
1,4-Dichlorobenzene	70	60	24 - 120	15	49		
3,3'-Dichlorobenzidine	67	77	18 - 120	13	50		
2,4-Dichlorophenol	94	136	46 - 120	36	30		*
Diethyl phthalate	103	121	59 - 114	16	30		*
2,4-Dimethylphenol	83	128	44 - 119	43	35		*
Dimethyl phthalate	100	106	58 - 112	6	30		
4,6-Dinitro-2-methylphenol	99	103	40 - 120	4	55		
2,4-Dinitrophenol	94	107	20 - 121	13	61		
2,4-Dinitrotoluene	100	142	57 - 120	34	35		*
2,6-Dinitrotoluene	96	101	56 - 120	5	30		
Di-n-octyl phthalate	106	121	56 - 120	14	30		*
Fluoranthene	104	107	58 - 120	3	30		
Fluorene	92	100	59 - 120	8	30		
Hexachlorobenzene	95	101	53 - 120	5	30		

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113443**

**Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-113443/2-A	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Client Matrix:	Water	Prep Batch:	280-113443	Lab File ID:	D9746.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/02/2012 1258	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113443/3-A	Analysis Batch:	280-114019	Instrument ID:	MSS_D
Client Matrix:	Water	Prep Batch:	280-113443	Lab File ID:	D9747.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	04/02/2012 1317	Units:	mg/L	Final Weight/Volume:	1000 uL
Prep Date:	03/28/2012 1700			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Hexachlorobutadiene	66	56	27 - 116	15	41	
Hexachlorocyclopentadiene	41	46	10 - 120	12	82	J
Hexachloroethane	67	54	40 - 113	22	52	
Indeno[1,2,3-cd]pyrene	99	105	50 - 120	5	73	
Isophorone	96	120	50 - 120	23	30	
p-Cresol	100	103	42 - 120	3	39	
Naphthalene	81	85	37 - 120	5	30	
Nitrobenzene	93	92	46 - 120	1	30	
2-Nitrophenol	98	151	47 - 120	42	30	*
4-Nitrophenol	101	99	53 - 120	2	42	
N-Nitrosodimethylamine	94	86	37 - 120	8	30	
N-Nitrosodiphenylamine	91	98	46 - 203	7	50	
N-Nitrosodi-n-propylamine	99	108	50 - 120	9	30	
Pentachlorophenol	94	107	46 - 120	13	30	
Phenanthrene	97	101	54 - 120	4	30	
Phenol	98	89	37 - 112	9	30	
Pyrene	96	103	55 - 115	7	30	
1,2,4-Trichlorobenzene	70	68	44 - 120	2	35	
2,4,6-Trichlorophenol	97	80	51 - 120	18	30	
2-Methylphenol	90	98	38 - 120	9	35	
Benzo[g,h,i]perylene	99	103	48 - 120	4	64	
2,2'-Oxybis(1-chloropropane)	90	97	37 - 120	8	30	
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits	
2-Fluorobiphenyl	87		95		36 - 120	
2-Fluorophenol	92		89		30 - 120	
2,4,6-Tribromophenol	102		108		50 - 120	
Nitrobenzene-d5	93		91		45 - 120	
Phenol-d5	98		87		36 - 120	
Terphenyl-d14	100		106		52 - 120	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-113443**

**Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-113443/2-A	Units:	mg/L	LCS Lab Sample ID:	LCSD 280-113443/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/02/2012 1258			Analysis Date:	04/02/2012 1317
Prep Date:	03/28/2012 1700			Prep Date:	03/28/2012 1700
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual	
Acenaphthene	0.0800	0.0800	0.0709	0.0754	
Acenaphthylene	0.0800	0.0800	0.0740	0.0788	
Anthracene	0.0800	0.0800	0.0785	0.0813	
Benzidine	0.400	0.400	0.167	0.0869	J *
Benzo[a]anthracene	0.0800	0.0800	0.0773	0.0818	
Benzo[b]fluoranthene	0.0800	0.0800	0.0749	0.0735	
Benzo[k]fluoranthene	0.0800	0.0800	0.0728	0.0815	
Benzo[a]pyrene	0.0800	0.0800	0.0637	0.0674	
Bis(2-chloroethoxy)methane	0.0800	0.0800	0.0716	0.0952	
Bis(2-chloroethyl)ether	0.0800	0.0800	0.0694	0.0786	
Bis(2-ethylhexyl) phthalate	0.0800	0.0800	0.0835	0.138	*
4-Bromophenyl phenyl ether	0.0800	0.0800	0.0763	0.0809	
Butyl benzyl phthalate	0.0800	0.0800	0.0793	0.0895	
4-Chloro-3-methylphenol	0.0800	0.0800	0.0801	0.0806	
2-Chloronaphthalene	0.0800	0.0800	0.0678	0.0727	
2-Chlorophenol	0.0800	0.0800	0.0741	0.0796	
4-Chlorophenyl phenyl ether	0.0800	0.0800	0.0728	0.0801	
Chrysene	0.0800	0.0800	0.0793	0.0827	
Dibenz(a,h)anthracene	0.0800	0.0800	0.0614	0.0640	
Di-n-butyl phthalate	0.0800	0.0800	0.0805	0.0865	
1,2-Dichlorobenzene	0.0800	0.0800	0.0577	0.0504	
1,3-Dichlorobenzene	0.0800	0.0800	0.0549	0.0455	
1,4-Dichlorobenzene	0.0800	0.0800	0.0557	0.0480	
3,3'-Dichlorobenzidine	0.0800	0.0800	0.0536	0.0612	
2,4-Dichlorophenol	0.0800	0.0800	0.0753	0.109	*
Diethyl phthalate	0.0800	0.0800	0.0823	0.0969	*
2,4-Dimethylphenol	0.0800	0.0800	0.0665	0.102	*
Dimethyl phthalate	0.0800	0.0800	0.0800	0.0851	
4,6-Dinitro-2-methylphenol	0.0800	0.0800	0.0795	0.0825	
2,4-Dinitrophenol	0.0800	0.0800	0.0751	0.0859	
2,4-Dinitrotoluene	0.0800	0.0800	0.0804	0.114	*
2,6-Dinitrotoluene	0.0800	0.0800	0.0768	0.0805	
Di-n-octyl phthalate	0.0800	0.0800	0.0844	0.0970	*
Fluoranthene	0.0800	0.0800	0.0834	0.0856	
Fluorene	0.0800	0.0800	0.0738	0.0798	
Hexachlorobenzene	0.0800	0.0800	0.0763	0.0806	
Hexachlorobutadiene	0.0800	0.0800	0.0524	0.0451	
Hexachlorocyclopentadiene	0.0800	0.0800	0.0328	J	0.0370
Hexachloroethane	0.0800	0.0800	0.0539		J

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-113443****Method: 625
Preparation: 625**

LCS Lab Sample ID:	LCS 280-113443/2-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113443/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/02/2012 1258			Analysis Date:	04/02/2012 1317
Prep Date:	03/28/2012 1700			Prep Date:	03/28/2012 1700
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Indeno[1,2,3-cd]pyrene	0.0800	0.0800	0.0796	0.0837
Isophorone	0.0800	0.0800	0.0766	0.0961
p-Cresol	0.160	0.160	0.160	0.165
Naphthalene	0.0800	0.0800	0.0646	0.0681
Nitrobenzene	0.0800	0.0800	0.0748	0.0739
2-Nitrophenol	0.0800	0.0800	0.0787	0.121 *
4-Nitrophenol	0.0800	0.0800	0.0809	0.0790
N-Nitrosodimethylamine	0.0800	0.0800	0.0749	0.0689
N-Nitrosodiphenylamine	0.0683	0.0683	0.0624	0.0672
N-Nitrosodi-n-propylamine	0.0800	0.0800	0.0789	0.0865
Pentachlorophenol	0.0800	0.0800	0.0750	0.0855
Phenanthrene	0.0800	0.0800	0.0774	0.0806
Phenol	0.0800	0.0800	0.0781	0.0712
Pyrene	0.0800	0.0800	0.0770	0.0826
1,2,4-Trichlorobenzene	0.0800	0.0800	0.0557	0.0544
2,4,6-Trichlorophenol	0.0800	0.0800	0.0772	0.0643
2-Methylphenol	0.0800	0.0800	0.0721	0.0787
Benzo[g,h,i]perylene	0.0800	0.0800	0.0792	0.0827
2,2'-Oxybis(1-chloropropane)	0.0800	0.0800	0.0719	0.0776

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-112986**Method: 200.7 Rev 4.4****Preparation: 200.7****Total Recoverable**

Lab Sample ID:	MB 280-112986/1-A	Analysis Batch:	280-113314	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1632	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	ND		0.022	0.10
Lead	ND		0.0026	0.0090
Selenium	ND		0.0049	0.015
Zinc	ND		0.0045	0.020
Silver	ND		0.00093	0.010

Lab Control Sample - Batch: 280-112986**Method: 200.7 Rev 4.4****Preparation: 200.7****Total Recoverable**

Lab Sample ID:	LCS 280-112986/2-A	Analysis Batch:	280-113314	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1634	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	1.00	1.01	101	88 - 110	
Cadmium	0.100	0.105	105	88 - 111	
Iron	1.00	0.992	99	89 - 115	
Lead	0.500	0.511	102	89 - 110	
Selenium	2.00	2.04	102	85 - 112	
Zinc	0.500	0.498	100	85 - 111	
Silver	0.0500	0.0536	107	85 - 115	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-112986**

Method: 200.7 Rev 4.4

Preparation: 200.7

Total Recoverable

MS Lab Sample ID:	280-26959-B-2-B MS	Analysis Batch:	280-113314	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1701			Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26959-B-2-C MSD	Analysis Batch:	280-113314	Instrument ID:	MT_026
Client Matrix:	Water	Prep Batch:	280-112986	Lab File ID:	26a032712.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	03/27/2012 1703			Final Weight/Volume:	50 mL
Prep Date:	03/26/2012 1400				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	101	103	88 - 110	2	20		
Cadmium	104	106	88 - 111	1	20		
Iron	95	96	89 - 115	1	20		
Lead	98	100	89 - 110	1	20		
Selenium	101	102	85 - 112	1	20		
Zinc	96	98	85 - 111	1	20		
Silver	108	109	85 - 115	1	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-112986**

Method: 200.7 Rev 4.4

Preparation: 200.7

Total Recoverable

MS Lab Sample ID:	280-26959-B-2-B MS	Units:	mg/L	MSD Lab Sample ID:	280-26959-B-2-C MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/27/2012 1701			Analysis Date:	03/27/2012 1703
Prep Date:	03/26/2012 1400			Prep Date:	03/26/2012 1400
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike	MSD Spike	MS	MSD
		Amount	Amount	Result/Qual	Result/Qual
Arsenic	ND	1.00	1.00	1.01	1.03
Cadmium	ND	0.100	0.100	0.104	0.106
Iron	0.10	1.00	1.00	1.05	1.06
Lead	ND	0.500	0.500	0.491	0.498
Selenium	ND	2.00	2.00	2.01	2.04
Zinc	0.033	0.500	0.500	0.515	0.521
Silver	ND	0.0500	0.0500	0.0541	0.0545

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113392

Method: 245.1

Preparation: 245.1

Lab Sample ID:	MB 280-113392/1-A	Analysis Batch:	280-113693	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1523	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.000027	0.00020

Lab Control Sample - Batch: 280-113392

Method: 245.1

Preparation: 245.1

Lab Sample ID:	LCS 280-113392/2-A	Analysis Batch:	280-113693	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1531	Units:	mg/L	Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00484	97	90 - 110	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113392

Method: 245.1

Preparation: 245.1

MS Lab Sample ID:	280-26964-1	Analysis Batch:	280-113693	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1537			Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26964-1	Analysis Batch:	280-113693	Instrument ID:	MT_034
Client Matrix:	Water	Prep Batch:	280-113392	Lab File ID:	120329taa.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 mL
Analysis Date:	03/29/2012 1540			Final Weight/Volume:	30 mL
Prep Date:	03/29/2012 1120				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	96	92	80 - 120	4	10		

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113392

Method: 245.1
Preparation: 245.1

MS Lab Sample ID:	280-26964-1	Units:	mg/L	MSD Lab Sample ID:	280-26964-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1537			Analysis Date:	03/29/2012 1540
Prep Date:	03/29/2012 1120			Prep Date:	03/29/2012 1120
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	ND	0.00500	0.00500	0.00478	0.00461

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113523

Method: 1664A

Preparation: 1664A

Lab Sample ID:	MB 280-113523/1-A	Analysis Batch:	280-113532	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	280-113523	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2012 0950	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/29/2012 0950				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
HEM	2.90	J	1.4	5.0

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-113523

Method: 1664A

Preparation: 1664A

LCSD Lab Sample ID:	LCS 280-113523/2-A	Analysis Batch:	280-113532	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	280-113523	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2012 0950	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/29/2012 0950				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113523/3-A	Analysis Batch:	280-113532	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	280-113523	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	03/29/2012 0950	Units:	mg/L	Final Weight/Volume:	1000 mL
Prep Date:	03/29/2012 0950				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
HEM	91	88	81 - 107	3	22	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113523

Method: 1664A

Preparation: 1664A

LCS Lab Sample ID:	LCS 280-113523/2-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113523/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 0950			Analysis Date:	03/29/2012 0950
Prep Date:	03/29/2012 0950			Prep Date:	03/29/2012 0950
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM	40.0	40.0	36.5	35.3

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113596**Method: 350.1****Preparation: N/A**

Lab Sample ID:	MB 280-113596/97	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1259	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia	ND		0.022	0.10

Method Blank - Batch: 280-113596**Method: 350.1****Preparation: N/A**

Lab Sample ID:	MB 280-113596/117	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1329	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia	ND		0.022	0.10

Method Blank - Batch: 280-113596**Method: 350.1****Preparation: N/A**

Lab Sample ID:	MB 280-113596/129	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1354	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia	ND		0.022	0.10

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113596**

**Method: 350.1
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113596/98	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1300	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113596/99	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1302	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Ammonia	100	101	90 - 110	1	10	

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113596**

**Method: 350.1
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113596/130	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1356	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113596/131	Analysis Batch:	280-113596	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1357	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Ammonia	101	101	90 - 110	1	10	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-113596**

**Method: 350.1
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113596/98	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113596/99
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1300			Analysis Date:	03/29/2012 1302
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Ammonia	5.00	5.00	4.98	5.04

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-113596**

**Method: 350.1
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113596/130	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113596/131
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1356			Analysis Date:	03/29/2012 1357
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Ammonia	5.00	5.00	5.03	5.07

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113596**

**Method: 350.1
Preparation: N/A**

MS Lab Sample ID:	280-26950-B-6 MS	Analysis Batch:	280-113596	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1324			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26950-B-6 MSD	Analysis Batch:	280-113596	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1326			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Ammonia	94	96	90 - 110	2	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113596**

**Method: 350.1
Preparation: N/A**

MS Lab Sample ID:	280-26989-B-1 MS	Analysis Batch:	280-113596	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1400			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26989-B-1 MSD	Analysis Batch:	280-113596	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1402			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Ammonia	83	83	90 - 110	0	20	F	F

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113596****Method: 350.1
Preparation: N/A**

MS Lab Sample ID:	280-26950-B-6 MS	Units:	mg/L	MSD Lab Sample ID:	280-26950-B-6 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1324			Analysis Date:	03/29/2012 1326
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Ammonia	ND	4.00	4.00	3.76	3.83

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113596****Method: 350.1
Preparation: N/A**

MS Lab Sample ID:	280-26989-B-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-26989-B-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1400			Analysis Date:	03/29/2012 1402
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Ammonia	ND	4.00	4.00	3.32 F	3.32 F

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113968

Method: 351.2

Preparation: 351.2

Lab Sample ID:	MB 280-113968/3-A	Analysis Batch:	280-114082	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-113968	Lab File ID:	040312TKN.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	04/03/2012 1315	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1522				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrogen, Kjeldahl	ND		0.077	0.50

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-113968

Method: 351.2

Preparation: 351.2

LCS Lab Sample ID:	LCS 280-113968/1-A	Analysis Batch:	280-114082	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-113968	Lab File ID:	040312TKN.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	04/03/2012 1312	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1522				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113968/2-A	Analysis Batch:	280-114082	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-113968	Lab File ID:	040312TKN.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	04/03/2012 1313	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1522				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Nitrogen, Kjeldahl	95	98	90 - 110	3	25	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113968

Method: 351.2

Preparation: 351.2

LCS Lab Sample ID:	LCS 280-113968/1-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113968/2-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/03/2012 1312			Analysis Date:	04/03/2012 1313
Prep Date:	04/02/2012 1522			Prep Date:	04/02/2012 1522
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrogen, Kjeldahl	6.00	6.00	5.70	5.86

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113968****Method: 351.2
Preparation: 351.2**

MS Lab Sample ID:	280-26961-B-6-B MS	Analysis Batch:	280-114082	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-113968	Lab File ID:	040312TKN.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	04/03/2012 1331			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1522				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26961-B-6-C MSD	Analysis Batch:	280-114082	Instrument ID:	WC_Astoria
Client Matrix:	Water	Prep Batch:	280-113968	Lab File ID:	040312TKN.tab
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	25 mL
Analysis Date:	04/03/2012 1332			Final Weight/Volume:	25 mL
Prep Date:	04/02/2012 1522				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrogen, Kjeldahl	55	58	90 - 110	4	25	F	F

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113968****Method: 351.2
Preparation: 351.2**

MS Lab Sample ID:	280-26961-B-6-B MS	Units:	mg/L	MSD Lab Sample ID:	280-26961-B-6-C MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/03/2012 1331			Analysis Date:	04/03/2012 1332
Prep Date:	04/02/2012 1522			Prep Date:	04/02/2012 1522
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike	MSD Spike	MS Result/Qual	MSD	MSD Result/Qual	
		Amount	Amount				
Nitrogen, Kjeldahl	0.86	3.00	3.00	2.51	F	2.60	F

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113600**Method: 353.2****Preparation: N/A**

Lab Sample ID:	MB 280-113600/20	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1103	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Method Blank - Batch: 280-113600**Method: 353.2****Preparation: N/A**

Lab Sample ID:	MB 280-113600/97	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1259	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Method Blank - Batch: 280-113600**Method: 353.2****Preparation: N/A**

Lab Sample ID:	MB 280-113600/117	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1329	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113600**Method: 353.2****Preparation: N/A**

Lab Sample ID:	MB 280-113600/129	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	03/29/2012 1354	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	ND		0.019	0.10

Method Reporting Limit Check - Batch: 280-113600**Method: 353.2****Preparation: N/A**

Lab Sample ID:	MRL 280-113600/18	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1100	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate Nitrite as N	0.100	0.0872	87	50 - 150	J

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113600**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113600/21	Analysis Batch:	280-113600	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1105	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113600/22	Analysis Batch:	280-113600	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1106	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Nitrate Nitrite as N	102	102	90 - 110	0	10	

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113600**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113600/98	Analysis Batch:	280-113600	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1300	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113600/99	Analysis Batch:	280-113600	Instrument ID:	WC_AlP 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1302	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Nitrate Nitrite as N	102	101	90 - 110	1	10	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-113600**

**Method: 353.2
Preparation: N/A**

LCS Lab Sample ID:	LCS 280-113600/130	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1356	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113600/131	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/29/2012 1357	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Nitrate Nitrite as N	101	103	90 - 110	1	10		

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113600

Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-113600/21	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113600/22
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1105			Analysis Date:	03/29/2012 1106
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.10	5.11

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113600

Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-113600/98	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113600/99
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1300			Analysis Date:	03/29/2012 1302
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.09	5.05

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113600

Method: 353.2
Preparation: N/A

LCS Lab Sample ID:	LCS 280-113600/130	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113600/131
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1356			Analysis Date:	03/29/2012 1357
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate Nitrite as N	5.00	5.00	5.06	5.13

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113600

Method: 353.2

Preparation: N/A

MS Lab Sample ID:	280-26930-B-1 MS	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1109			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26930-B-1 MSD	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1111			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate Nitrite as N	104	104	90 - 110	0	17		

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113600

Method: 353.2

Preparation: N/A

MS Lab Sample ID:	280-26989-B-1 MS	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1400			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26989-B-1 MSD	Analysis Batch:	280-113600	Instrument ID:	WC_Alp 2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	C:\FLOW_4\0329NXNB
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	03/29/2012 1402			Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate Nitrite as N	95	97	90 - 110	1	17		

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113600****Method: 353.2
Preparation: N/A**

MS Lab Sample ID:	280-26930-B-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-26930-B-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1109			Analysis Date:	03/29/2012 1111
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	1.4	4.00	4.00	5.53	5.52

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113600****Method: 353.2
Preparation: N/A**

MS Lab Sample ID:	280-26989-B-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-26989-B-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/29/2012 1400			Analysis Date:	03/29/2012 1402
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	2.6	4.00	4.00	6.37	6.44

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113928**Method: 365.1****Preparation: 365.2/365.3/365**

Lab Sample ID:	MB 280-113928/3-A	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1649	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Phosphorus, Total	ND		0.0050	0.050

Laboratory Control Sample/**Laboratory Control Sample Duplicate Recovery Report - Batch: 280-113928****Method: 365.1****Preparation: 365.2/365.3/365**

LCS Lab Sample ID:	LCS 280-113928/1-A	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1649	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113928/2-A	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1649	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Phosphorus, Total	96	96	90 - 110	0	10	

Laboratory Control/**Laboratory Duplicate Data Report - Batch: 280-113928****Method: 365.1****Preparation: 365.2/365.3/365**

LCS Lab Sample ID:	LCS 280-113928/1-A	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113928/2-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	04/02/2012 1649			Analysis Date:	04/02/2012 1649
Prep Date:	04/02/2012 1232			Prep Date:	04/02/2012 1232
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Phosphorus, Total	0.500	0.500	0.478	0.480

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113928

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID:	280-26961-A-1-B MS	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1649			Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				
MSD Lab Sample ID:	280-26961-A-1-C MSD	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1650			Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phosphorus, Total	114	105	90 - 110	8	22	F	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113928

Method: 365.1
Preparation: 365.2/365.3/365

MS Lab Sample ID:	280-26964-2	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1653			Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				
MSD Lab Sample ID:	280-26964-2	Analysis Batch:	280-113979	Instrument ID:	WC_Konelab
Client Matrix:	Water	Prep Batch:	280-113928	Lab File ID:	040212TPHOSB.xls
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	04/02/2012 1653			Final Weight/Volume:	50 mL
Prep Date:	04/02/2012 1232				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phosphorus, Total	90	91	90 - 110	1	22		

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113928****Method: 365.1
Preparation: 365.2/365.3/365**

MS Lab Sample ID: 280-26961-A-1-B MS Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1649
Prep Date: 04/02/2012 1232
Leach Date: N/A

MSD Lab Sample ID: 280-26961-A-1-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1650
Prep Date: 04/02/2012 1232
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Phosphorus, Total	0.034 J	0.500	0.500	0.605 F	0.561

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-113928****Method: 365.1
Preparation: 365.2/365.3/365**

MS Lab Sample ID: 280-26964-2 Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1653
Prep Date: 04/02/2012 1232
Leach Date: N/A

MSD Lab Sample ID: 280-26964-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 04/02/2012 1653
Prep Date: 04/02/2012 1232
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Phosphorus, Total	0.22	0.500	0.500	0.665	0.670

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113353

Method: 410.4

Preparation: N/A

Lab Sample ID:	MB 280-113353/5	Analysis Batch:	280-113353	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	03/28/2012 1104	Units:	mg/L	Final Weight/Volume:	2 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Chemical Oxygen Demand	ND		4.1	20

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-113353

Method: 410.4
Preparation: N/A

LCS Lab Sample ID:	LCS 280-113353/3	Analysis Batch:	280-113353	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/28/2012 1104	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113353/4	Analysis Batch:	280-113353	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	03/28/2012 1104	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Chemical Oxygen Demand	98	97	90 - 110	1	11	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113353

Method: 410.4
Preparation: N/A

LCS Lab Sample ID:	LCS 280-113353/3	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113353/4
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/28/2012 1104			Analysis Date:	03/28/2012 1104
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Chemical Oxygen Demand	100	100	98.5	97.1

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113353

**Method: 410.4
Preparation: N/A**

MS Lab Sample ID:	280-26920-E-1 MS	Analysis Batch:	280-113353	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	03/28/2012 1104			Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	280-26920-E-1 MSD	Analysis Batch:	280-113353	Instrument ID:	WC_HACH SPEC
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2 mL
Analysis Date:	03/28/2012 1104			Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chemical Oxygen Demand	101	99	90 - 110	1	11		

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-113353

**Method: 410.4
Preparation: N/A**

MS Lab Sample ID:	280-26920-E-1 MS	Units:	mg/L	MSD Lab Sample ID:	280-26920-E-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/28/2012 1104			Analysis Date:	03/28/2012 1104
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample	MS Spike	MSD Spike	MS	MSD
	Result/Qual	Amount	Amount	Result/Qual	Result/Qual
Chemical Oxygen Demand	31	50.0	50.0	81.7	80.6

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-113184

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	MB 280-113184/1	Analysis Batch:	280-113184	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/27/2012 0845	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	ND		1.1	4.0

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-113184

Method: SM 2540D

Preparation: N/A

LCS Lab Sample ID:	LCS 280-113184/2	Analysis Batch:	280-113184	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/27/2012 0845	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-113184/3	Analysis Batch:	280-113184	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	03/27/2012 0845	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
Total Suspended Solids	91	92	86 - 114	1	20	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-113184

Method: SM 2540D

Preparation: N/A

LCS Lab Sample ID:	LCS 280-113184/2	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-113184/3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	03/27/2012 0845			Analysis Date:	03/27/2012 0845
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Suspended Solids	100	100	91.0	92.0

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Duplicate - Batch: 280-113184

Method: SM 2540D

Preparation: N/A

Lab Sample ID:	280-26932-A-7 DU	Analysis Batch:	280-113184	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	03/27/2012 0845	Units:	mg/L	Final Weight/Volume:	250 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	11	12.0	7	10	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Method Blank - Batch: 280-114134

Method: Total Nitrogen

Preparation: N/A

Lab Sample ID:	MB 280-114134/1	Analysis Batch:	280-114134	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/03/2012 1742	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrogen, Total	ND		0.042	0.10

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: 280-26964-1

Client ID: DETENTION BASIN

Sample Date/Time: 03/21/2012 10:13 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	280-26964-E-1-A	280-114019	280-113443	03/28/2012 17:00	1	TAL DEN	DFB	
A:625	280-26964-E-1-A	280-114019	280-113443	04/02/2012 21:56	1	TAL DEN	MGH	
P:200.7	280-26964-H-1-A	280-113314	280-112986	03/26/2012 14:00	1	TAL DEN	JM	
A:200.7 Rev 4.4	280-26964-H-1-A	280-113314	280-112986	03/27/2012 17:40	1	TAL DEN	HEB	
P:245.1	280-26964-H-1-B	280-113693	280-113392	03/29/2012 11:20	1	TAL DEN	BLR	
A:245.1	280-26964-H-1-B	280-113693	280-113392	03/29/2012 15:35	1	TAL DEN	BLR	
P:1664A	280-26964-A-1-A	280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE	
A:1664A	280-26964-A-1-A	280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE	
A:350.1	280-26964-G-1	280-113596		03/29/2012 14:21	1	TAL DEN	SJS	
P:351.2	280-26964-G-1-A	280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW	
A:351.2	280-26964-G-1-A	280-114082	280-113968	04/03/2012 13:47	1	TAL DEN	MW	
A:353.2	280-26964-G-1	280-113600		03/29/2012 14:21	1	TAL DEN	SJS	
P:365.2/365.3/365	280-26964-F-1-A	280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT	
A:365.1	280-26964-F-1-A	280-113979	280-113928	04/02/2012 16:53	1	TAL DEN	JMT	
A:410.4	280-26964-F-1	280-113353		03/28/2012 11:04	1	TAL DEN	AJA	
A:SM 2540D	280-26964-C-1	280-113184		03/27/2012 08:45	1	TAL DEN	AJA	
A:Total Nitrogen	280-26964-A-1	280-114134		04/03/2012 17:42	1	TAL DEN	DFB	
A:Field Sampling	280-26964-A-1	280-113011		03/21/2012 10:13	1	TAL DEN	FS	

Lab ID: 280-26964-1 MS

Client ID: DETENTION BASIN

Sample Date/Time: 03/21/2012 10:13 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:245.1	280-26964-H-1-C MS	280-113693	280-113392	03/29/2012 11:20	1	TAL DEN	BLR	
A:245.1	280-26964-H-1-C MS	280-113693	280-113392	03/29/2012 15:37	1	TAL DEN	BLR	

Lab ID: 280-26964-1 MSD

Client ID: DETENTION BASIN

Sample Date/Time: 03/21/2012 10:13 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:245.1	280-26964-H-1-D MSD	280-113693	280-113392	03/29/2012 11:20	1	TAL DEN	BLR	
A:245.1	280-26964-H-1-D MSD	280-113693	280-113392	03/29/2012 15:40	1	TAL DEN	BLR	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: 280-26964-2

Client ID: CULVERT

Sample Date/Time: 03/21/2012 10:36 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	280-26964-D-2-A		280-114019	280-113443	03/28/2012 17:00	1	TAL DEN	DFB
A:625	280-26964-D-2-A		280-114019	280-113443	04/02/2012 22:15	1	TAL DEN	MGH
P:200.7	280-26964-H-2-A		280-113314	280-112986	03/26/2012 14:00	1	TAL DEN	JM
A:200.7 Rev 4.4	280-26964-H-2-A		280-113314	280-112986	03/27/2012 17:42	1	TAL DEN	HEB
P:245.1	280-26964-H-2-B		280-113693	280-113392	03/29/2012 11:20	1	TAL DEN	BLR
A:245.1	280-26964-H-2-B		280-113693	280-113392	03/29/2012 15:42	1	TAL DEN	BLR
P:1664A	280-26964-A-2-A		280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE
A:1664A	280-26964-A-2-A		280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE
A:350.1	280-26964-F-2		280-113596		03/29/2012 13:42	1	TAL DEN	SJS
P:351.2	280-26964-F-2-A		280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW
A:351.2	280-26964-F-2-A		280-114082	280-113968	04/03/2012 13:48	1	TAL DEN	MW
A:353.2	280-26964-F-2		280-113600		03/29/2012 13:42	1	TAL DEN	SJS
P:365.2/365.3/36	280-26964-G-2-A		280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT
5								
A:365.1	280-26964-G-2-A		280-113979	280-113928	04/02/2012 16:53	1	TAL DEN	JMT
A:410.4	280-26964-G-2		280-113353		03/28/2012 11:04	1	TAL DEN	AJA
A:SM 2540D	280-26964-E-2		280-113184		03/27/2012 08:45	1	TAL DEN	AJA
A:Total Nitrogen	280-26964-A-2		280-114134		04/03/2012 17:42	1	TAL DEN	DFB
A:Field Sampling	280-26964-A-2		280-113011		03/21/2012 10:36	1	TAL DEN	FS

Lab ID: 280-26964-2 MS

Client ID: CULVERT

Sample Date/Time: 03/21/2012 10:36 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:365.2/365.3/36	280-26964-G-2-B MS		280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT
5								
A:365.1	280-26964-G-2-B MS		280-113979	280-113928	04/02/2012 16:53	1	TAL DEN	JMT

Lab ID: 280-26964-2 MSD

Client ID: CULVERT

Sample Date/Time: 03/21/2012 10:36 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:365.2/365.3/36	280-26964-G-2-C		280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT
5	MSD							
A:365.1	280-26964-G-2-C		280-113979	280-113928	04/02/2012 16:53	1	TAL DEN	JMT
	MSD							

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: 280-26964-3

Client ID: UPCANYON

Sample Date/Time: 03/21/2012 10:23 Received Date/Time: 03/23/2012 09:00

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	280-26964-C-3-A	280-114019	280-113443	03/28/2012 17:00	1	TAL DEN	DFB	
A:625	280-26964-C-3-A	280-114019	280-113443	04/02/2012 22:34	1	TAL DEN	MGH	
P:200.7	280-26964-H-3-A	280-113314	280-112986	03/26/2012 14:00	1	TAL DEN	JM	
A:200.7 Rev 4.4	280-26964-H-3-A	280-113314	280-112986	03/27/2012 17:45	1	TAL DEN	HEB	
P:245.1	280-26964-H-3-B	280-113693	280-113392	03/29/2012 11:20	1	TAL DEN	BLR	
A:245.1	280-26964-H-3-B	280-113693	280-113392	03/29/2012 15:44	1	TAL DEN	BLR	
P:1664A	280-26964-B-3-A	280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE	
A:1664A	280-26964-B-3-A	280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE	
A:350.1	280-26964-G-3	280-113596		03/29/2012 13:44	1	TAL DEN	SJS	
P:351.2	280-26964-F-3-A	280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW	
A:351.2	280-26964-F-3-A	280-114082	280-113968	04/03/2012 13:50	1	TAL DEN	MW	
A:353.2	280-26964-G-3	280-113600		03/29/2012 13:44	1	TAL DEN	SJS	
P:365.2/365.3/365	280-26964-G-3-A	280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT	
A:365.1	280-26964-G-3-A	280-113979	280-113928	04/02/2012 16:53	1	TAL DEN	JMT	
A:410.4	280-26964-G-3	280-113353		03/28/2012 11:04	1	TAL DEN	AJA	
A:SM 2540D	280-26964-E-3	280-113184		03/27/2012 08:45	1	TAL DEN	AJA	
A:Total Nitrogen	280-26964-A-3	280-114134		04/03/2012 17:42	1	TAL DEN	DFB	
A:Field Sampling	280-26964-A-3	280-113011		03/21/2012 10:23	1	TAL DEN	FS	

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis		Date Prepared / Analyzed		Dil	Lab	Analyst
			Batch	Prep Batch					
P:625	MB 280-113443/1-A	280-114019	280-113443	03/28/2012 17:00	1	TAL DEN	DFB		
A:625	MB 280-113443/1-A	280-114019	280-113443	04/02/2012 21:37	1	TAL DEN	MGH		
P:200.7	MB 280-112986/1-A	280-113314	280-112986	03/26/2012 14:00	1	TAL DEN	JM		
A:200.7 Rev 4.4	MB 280-112986/1-A	280-113314	280-112986	03/27/2012 16:32	1	TAL DEN	HEB		
P:245.1	MB 280-113392/1-A	280-113693	280-113392	03/29/2012 11:20	1	TAL DEN	BLR		
A:245.1	MB 280-113392/1-A	280-113693	280-113392	03/29/2012 15:23	1	TAL DEN	BLR		
P:1664A	MB 280-113523/1-A	280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE		
A:1664A	MB 280-113523/1-A	280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE		
A:350.1	MB 280-113596/97	280-113596		03/29/2012 12:59	1	TAL DEN	SJS		
A:350.1	MB 280-113596/117	280-113596		03/29/2012 13:29	1	TAL DEN	SJS		
A:350.1	MB 280-113596/129	280-113596		03/29/2012 13:54	1	TAL DEN	SJS		
P:351.2	MB 280-113968/3-A	280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW		
A:351.2	MB 280-113968/3-A	280-114082	280-113968	04/03/2012 13:15	1	TAL DEN	MW		
A:353.2	MB 280-113600/20	280-113600		03/29/2012 11:03	1	TAL DEN	SJS		
A:353.2	MB 280-113600/97	280-113600		03/29/2012 12:59	1	TAL DEN	SJS		
A:353.2	MB 280-113600/117	280-113600		03/29/2012 13:29	1	TAL DEN	SJS		
A:353.2	MB 280-113600/129	280-113600		03/29/2012 13:54	1	TAL DEN	SJS		
P:365.2/365.3/365	MB 280-113928/3-A	280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT		
A:365.1	MB 280-113928/3-A	280-113979	280-113928	04/02/2012 16:49	1	TAL DEN	JMT		
A:410.4	MB 280-113353/5	280-113353		03/28/2012 11:04	1	TAL DEN	AJA		
A:SM 2540D	MB 280-113184/1	280-113184		03/27/2012 08:45	1	TAL DEN	AJA		
A:Total Nitrogen	MB 280-114134/1	280-114134		04/03/2012 17:42	1	TAL DEN	DFB		

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: LCS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis		Date Prepared / Analyzed		Dil	Lab	Analyst
			Batch	Prep Batch					
P:625	LCS 280-113443/2-A	280-114019	280-113443		03/28/2012 17:00		1	TAL DEN	DFB
A:625	LCS 280-113443/2-A	280-114019	280-113443		04/02/2012 12:58		1	TAL DEN	MGH
P:200.7	LCS 280-112986/2-A	280-113314	280-112986		03/26/2012 14:00		1	TAL DEN	JM
A:200.7 Rev 4.4	LCS 280-112986/2-A	280-113314	280-112986		03/27/2012 16:34		1	TAL DEN	HEB
P:245.1	LCS 280-113392/2-A	280-113693	280-113392		03/29/2012 11:20		1	TAL DEN	BLR
A:245.1	LCS 280-113392/2-A	280-113693	280-113392		03/29/2012 15:31		1	TAL DEN	BLR
P:1664A	LCS 280-113523/2-A	280-113532	280-113523		03/29/2012 09:50		1	TAL DEN	DE
A:1664A	LCS 280-113523/2-A	280-113532	280-113523		03/29/2012 09:50		1	TAL DEN	DE
A:350.1	LCS 280-113596/98	280-113596			03/29/2012 13:00		1	TAL DEN	SJS
A:350.1	LCS 280-113596/130	280-113596			03/29/2012 13:56		1	TAL DEN	SJS
P:351.2	LCS 280-113968/1-A	280-114082	280-113968		04/02/2012 15:22		1	TAL DEN	MW
A:351.2	LCS 280-113968/1-A	280-114082	280-113968		04/03/2012 13:12		1	TAL DEN	MW
A:353.2	LCS 280-113600/21	280-113600			03/29/2012 11:05		1	TAL DEN	SJS
A:353.2	LCS 280-113600/98	280-113600			03/29/2012 13:00		1	TAL DEN	SJS
A:353.2	LCS 280-113600/130	280-113600			03/29/2012 13:56		1	TAL DEN	SJS
P:365.2/365.3/36 5	LCS 280-113928/1-A	280-113979	280-113928		04/02/2012 12:32		1	TAL DEN	JMT
A:365.1	LCS 280-113928/1-A	280-113979	280-113928		04/02/2012 16:49		1	TAL DEN	JMT
A:410.4	LCS 280-113353/3	280-113353			03/28/2012 11:04		1	TAL DEN	AJA
A:SM 2540D	LCS 280-113184/2	280-113184			03/27/2012 08:45		1	TAL DEN	AJA

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: LCSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:625	LCSD 280-113443/3-A		280-114019	280-113443	03/28/2012 17:00	1	TAL DEN	DFB
A:625	LCSD 280-113443/3-A		280-114019	280-113443	04/02/2012 13:17	1	TAL DEN	MGH
P:1664A	LCSD 280-113523/3-A		280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE
A:1664A	LCSD 280-113523/3-A		280-113532	280-113523	03/29/2012 09:50	1	TAL DEN	DE
A:350.1	LCSD 280-113596/99		280-113596		03/29/2012 13:02	1	TAL DEN	SJS
A:350.1	LCSD 280-113596/131		280-113596		03/29/2012 13:57	1	TAL DEN	SJS
P:351.2	LCSD 280-113968/2-A		280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW
A:351.2	LCSD 280-113968/2-A		280-114082	280-113968	04/03/2012 13:13	1	TAL DEN	MW
A:353.2	LCSD 280-113600/22		280-113600		03/29/2012 11:06	1	TAL DEN	SJS
A:353.2	LCSD 280-113600/99		280-113600		03/29/2012 13:02	1	TAL DEN	SJS
A:353.2	LCSD 280-113600/131		280-113600		03/29/2012 13:57	1	TAL DEN	SJS
P:365.2/365.3/365	LCSD 280-113928/2-A		280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT
A:365.1	LCSD 280-113928/2-A		280-113979	280-113928	04/02/2012 16:49	1	TAL DEN	JMT
A:410.4	LCSD 280-113353/4		280-113353		03/28/2012 11:04	1	TAL DEN	AJA
A:SM 2540D	LCSD 280-113184/3		280-113184		03/27/2012 08:45	1	TAL DEN	AJA

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:353.2	MRL 280-113600/18		280-113600		03/29/2012 11:00	1	TAL DEN	SJS

Quality Control Results

Client: Waste Management

Job Number: 280-26964-1

Laboratory Chronicle

Lab ID: MS

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:200.7	280-26959-B-2-B MS	280-113314	280-112986	03/26/2012 14:00	1	TAL DEN	JM	
A:200.7 Rev 4.4	280-26959-B-2-B MS	280-113314	280-112986	03/27/2012 17:01	1	TAL DEN	HEB	
A:350.1	280-26950-B-6 MS	280-113596		03/29/2012 13:24	1	TAL DEN	SJS	
A:350.1	280-26989-B-1 MS	280-113596		03/29/2012 14:00	1	TAL DEN	SJS	
P:351.2	280-26961-B-6-B MS	280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW	
A:351.2	280-26961-B-6-B MS	280-114082	280-113968	04/03/2012 13:31	1	TAL DEN	MW	
A:353.2	280-26930-B-1 MS	280-113600		03/29/2012 11:09	1	TAL DEN	SJS	
A:353.2	280-26989-B-1 MS	280-113600		03/29/2012 14:00	1	TAL DEN	SJS	
P:365.2/365.3/365	280-26961-A-1-B MS	280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT	
5								
A:365.1	280-26961-A-1-B MS	280-113979	280-113928	04/02/2012 16:49	1	TAL DEN	JMT	
A:410.4	280-26920-E-1 MS	280-113353		03/28/2012 11:04	1	TAL DEN	AJA	

Lab ID: MSD

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:200.7	280-26959-B-2-C MSD	280-113314	280-112986	03/26/2012 14:00	1	TAL DEN	JM	
A:200.7 Rev 4.4	280-26959-B-2-C MSD	280-113314	280-112986	03/27/2012 17:03	1	TAL DEN	HEB	
A:350.1	280-26950-B-6 MSD	280-113596		03/29/2012 13:26	1	TAL DEN	SJS	
A:350.1	280-26989-B-1 MSD	280-113596		03/29/2012 14:02	1	TAL DEN	SJS	
P:351.2	280-26961-B-6-C MSD	280-114082	280-113968	04/02/2012 15:22	1	TAL DEN	MW	
A:351.2	280-26961-B-6-C MSD	280-114082	280-113968	04/03/2012 13:32	1	TAL DEN	MW	
A:353.2	280-26930-B-1 MSD	280-113600		03/29/2012 11:11	1	TAL DEN	SJS	
A:353.2	280-26989-B-1 MSD	280-113600		03/29/2012 14:02	1	TAL DEN	SJS	
P:365.2/365.3/365	280-26961-A-1-C MSD	280-113979	280-113928	04/02/2012 12:32	1	TAL DEN	JMT	
5								
A:365.1	280-26961-A-1-C MSD	280-113979	280-113928	04/02/2012 16:50	1	TAL DEN	JMT	
A:410.4	280-26920-E-1 MSD	280-113353		03/28/2012 11:04	1	TAL DEN	AJA	

Lab ID: DU

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2540D	280-26932-A-7 DU		280-113184		03/27/2012 08:45	1	TAL DEN	AJA

Lab References:

TAL DEN = TestAmerica Denver

Food Quality Lab

3375 Koapaka Street, G314

Honolulu, HI 96819

Phone: 808-839-9444, Fax: 808-839-9744

AECOM

1001 Bishop St., Suite 1600

Honolulu, HI, 96813

Attn:Mark Hofferbert

Project Name: W GSL Stormwater

PO No: 6246625.02

CERTIFICATE OF ANALYSIS

Received: 03/21/2012 @ 12:10 PM

Completed: 04/06/2012 @

Project Number: 120321-2568-015

Temperature: 4.0 °C

Client Project No: 6246625.02

Sample ID: 120321-2568-015-01

Water Sample -25
Culvert Inlet

Sampled: 3/21/2012 @ 10:36 AM

Sampler: Katie Langford

Analysis	Results	Units	MDL	Test Method	Analyzed	By
Biochemical Oxygen Demand, 5-day	4.6	mg/L	1.0	SM 5210 B	03/21/2012	LS
Chromium 6+	See Attached	ug/L	0.030	EPA 218.6	04/04/2012	Wec k

Approved By: Arnold D. Amato

Friday, April 06, 2012

Page 1 of 1

14339



3375 Koapaka St., G314
Honolulu, HI 96819
808-839-9444 Fax 808-839-9744

CLIENT NAME: **AECOM Technical Services, Inc.**

CHAIN OF CUSTODY AND ANALYSIS REQUEST											
DATE: <u>Not delivered</u>		PAGE <u>1</u> OF <u>1</u>									
PROJECT NAME: WGSI Stormwater		PROJECT NO: 60246621		P.O. NO: 60246625.02		LOG BOOK NO. <u>523-8950</u>		FILE NO. <u>3/21/17</u>		LAB NO. <u>Not delivered</u>	
ADDRESS: 1001 Bishop St, Suite 1600, Honolulu, HI 96813		PHONE NO: 523-8874		FAX NO: 523-8950							
PROJECT MANAGER: Mark Hofferhert <i>(Signature)</i>											
SAMPLER NAME: Dick Duwas <i>(Signature)</i>											
TAT/Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N = NORMAL											
CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:											
SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION		MATRIX	CONTAINER	ON SITE	IN LAB	COMMENTS:		
			WATER	SOIL					SLUICE	OTHER	#	TYPE	GLASS	PLASTIC	CLL
1	3/21/17	10:20	UPC AND YAN		X			X	X		
2											
3											
4											
5											
6											
7											
8											
9											
10											
Printed By: <i>Mary Lynn</i> (Signature and Printed Name)										Time: <u>12/12</u>	
Received By: <i>Mary Lynn</i> (Signature and Printed Name)										Time: <u>12/12</u>	
Printed By: <i>Mary Lynn</i> (Signature and Printed Name)										Time: <u>12/12</u>	
Received By: <i>Mary Lynn</i> (Signature and Printed Name)										Time: <u>12/12</u>	
SPECIAL INSTRUCTIONS:											
By: <i>Mary Lynn</i> Date: <u>12/12</u>											
SAMPLE DISPOSITION:											
1. Samples returned to client? YES <u>NO</u>											
2. Samples will not be stored over 30 days, unless additional storage time is requested.											
3. Storage time requested: <u>days</u> By: <i>Mary Lynn</i> Date: <u>12/12</u>											



QC Report

AECOM
1001 Bishop St., Suite 1600
Honolulu, HI, 96813
Attn: Mark Hofferbert
Project Name: WGSL Stormwater

Received: 3/21/2012

Completed: 4/6/2012

Project Number: 120321-2568-015

Analysis	QC Test	Results	MDL	Units	GGA Range	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 3/21/2012											
BOD	Blank	0.04	1	mg/L	-	-	-	-	-	-	
BOD	GGA	209	1	mg/L	198±30.5	-	-	-	-	-	Pass

The results are within the control limit range of 198 ± 30.5

Notes:

- B1 Target Analyte detected in method blank was above the method detection limit.
D8 The duplicate exceeded the acceptance limit due to sample matrix effects.
dry Sample results reported on a dry weight basis.
LCS Laboratory Control Standard
M8 The matrix spike was below the acceptance limits. See Blank Spike (LCS)
M9 The matrix spike was above the acceptance limits. See Blank Spike (LCS)
MDL Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND Not Detected
NR Not Reported
R8 The LCS recovery was below the acceptance limits.
R9 The LCS recovery was above the acceptance limits.
REC Recovery
RPD Relative Percent Difference



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

CERTIFICATE OF ANALYSIS

Client:	Food Quality Labs 3375 Koapaka Street, G314 Honolulu HI, 96819	Report Date:	04/06/12 13:52
Attention:	Imelda Quarto	Received Date:	03/27/12 09:15
Phone:	(808) 839-9444	Turn Around:	Normal
Fax:	(808) 839-9744	Client Project:	AECOM WGSL Stormwater
Work Order(s):	2C27022		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Imelda Quarto :

Enclosed are the results of analyses for samples received 03/27/12 09:15 with the Chain of Custody document. The samples were received in good condition, at 4.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Ana Carrera For Hai Van Nguyen
Project Manager





Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

2C27022-03 Culvert Inlet

Sampled: 03/21/12 10:36

Sampled By: client

Matrix: Water

Hexavalent Chromium by IC

Method: EPA 218.6

Batch: W2D0185

Prepared: 03/21/12 12:00

Analyst: mac

Analyte

Chromium 6+

Result

MDL

MRL

Units

Dil

Analyzed

Qualifier

1.6

0.030

1.5

ug/l

5

04/04/12 15:12



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
Detension Basin	client		2C27022-01	Water	03/21/12 10:13
UP Canyon	client		2C27022-02	Water	03/21/12 10:20
Culvert Inlet	client		2C27022-03	Water	03/21/12 10:36

ANALYSES

Hexavalent Chromium by IC



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

QUALITY CONTROL SECTION



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

Hexavalent Chromium by IC - Quality Control

Batch W2D0185 - EPA 218.6

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers				
Blank (W2D0185-BLK1)					Analyzed: 04/04/12 15:12									
Chromium 6+	ND	0.30	ug/l											
LCS (W2D0185-BS1)					Analyzed: 04/04/12 15:12									
Chromium 6+	4.98	0.30	ug/l	5.00		100	90-110							
Matrix Spike (W2D0185-MS1)		Source: 2D04009-01			Analyzed: 04/04/12 15:12									
Chromium 6+	5.06	0.30	ug/l	5.00	0.0291	101	88-112							
Matrix Spike Dup (W2D0185-MSD1)		Source: 2D04009-01			Analyzed: 04/04/12 15:12									
Chromium 6+	5.15	0.30	ug/l	5.00	0.0291	102	88-112	2	10					



Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.



3375 Koapaka St., G314
Honolulu, HI 96819
808-839-9444 Fax 808-839-9744

2C27022

DATE: _____ PAGE ____ OF ____
ANALYSIS REQUEST
LAB NO. _____

CLIENT NAME: FQ Labs
ADDRESS: 3375 Koapaka Street G314

EMAIL: melda@fqlab.com

PROJECT NAME: AECOM WESL STORMWATER NO:
P.O. NO:

PROJECT MANAGER: MELDA QUARTO PHONE NO: 808-839-9744.
FAX NO: 808-839-9744.

SAMPLER NAME: (Printed)

(Signature)

TAT/Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N = NORMAL

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX			CONTAINER	COMMENTS	SAMPLE CONDITION	
				WATER	OTHER	#				TYPE	GLOB COMP
1 23	3/21	10:13	Defension Basin	X		1	P	G	X	As per incl'dg
2 24	3/21	10:20	UP CANYON	X		1	P	G	X	@ FQ lab
3 25	3/21	10:36	Culvert Inlet	X		1	P	G	X	Samples were pre-filtered and buffered before submitting for
4										
5										
6										
7										
8										
9										
10										

Received By: (Signature and Printed Name) John Maha Received By: (Signature and Printed Name) WANG, ZHANG
Released By: (Signature and Printed Name) Zhang Released By: (Signature and Printed Name) Zhang
Released By: (Signature and Printed Name) Zhang Released By: (Signature and Printed Name) Zhang

SPECIAL INSTRUCTIONS:
FQL

SAMPLE DISPOSITION:
1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ day(s)
By _____ Date _____

Food Quality Lab

3375 Koapaka Street, G314

Honolulu, HI 96819

Phone: 808-839-9444, Fax: 808-839-9744

AECOM

1001 Bishop St., Suite 1600

Honolulu, HI, 96813

Attn:Mark Hofferbert

Project Name: WGSL Stormwater

PO No: 6246625.02

CERTIFICATE OF ANALYSIS

Received: 03/21/2012 @ 12:10 PM

Completed: 04/06/2012 @

Project Number: 120321-2568-013

Temperature: 4.0 °C

Client Project No: 6246625.02

Sample ID: 120321-2568-013-01

Water Sample -23
Detention Basin

Sampled: 3/21/2012 @ 10:13 AM

Sampler: Katie Langford

Analysis	Results	Units	MDL	Test Method	Analyzed	By
Biochemical Oxygen Demand, 5-day	1.8	mg/L	1.0	SM 5210 B	03/21/2012	LS
Chromium 6+	See Attached	ug/L	0.030	EPA 218.6	04/04/2012	Wec k

Approved By:

Friday, April 06, 2012

Page 1 of 1

14339



3375 Koapaka St., G314
Honolulu, HI 96819
808-839-9444 Fax 808-839-9744

CHAIN OF CUSTODY AND ANALYSIS REQUEST										LAB NO.			
										DATE:			
										PAGE	OF		
CLIENT NAME: AECOM Technical Services, Inc.			PROJECT NO.: 6024662	P.O. NO.: 60246625.02	LOG BOOK NO.	FILE NO.	ANALYSES REQUESTED:		AIRBILL NO.: <i>Hand delivered</i>				
PROJECT NAME: WGSI Stormwater	PHONE NO.: 523-8874	FAX NO.: 523-8950							COOLER TEMP: <i>4°C</i>				
ADDRESS: 1001 Bishop St, Suite 1600, Honolulu, HI 96813									PRESERVED: _____				
PROJECT MANAGER: Mark Hofferhert									REMARKS: Report to: Betsy Sara (betsy.sara@ testamericainc.com)				
SAMPLER NAME: Katie Langford (Printed) (Signature)													
TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N = NORMAL													
CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other.													
SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX	CONTAINER	ON SITE	ANALYSES REQUESTED:						
1	3/2/12	10:13	Detention Basin	WATER	SOIL	STUOCE	OTHER	#	TYPE	DATE TESTED			
2													
3													
4													
5													
6													
7													
8													
9													
10													
Received By (Signature and Printed Name) <i>Katie Langford</i>										Date <i>3/2/12</i>	Time <i>12:00</i>	SAMPLE DISPOSITION: <i>1. Samples returned to client?</i>	YES <i>No</i>
Received By (Signature and Printed Name) <i>Katie Langford</i>										Date	Time	2. Samples will not be stored over 30 days, unless additional storage time is requested.	
Received By (Signature and Printed Name) <i>Katie Langford</i>										Date	Time	3. Storage time requested: _____ days	
SPECIAL INSTRUCTIONS:										By	Date		



QC Report

AECOM
1001 Bishop St., Suite 1600
Honolulu, HI, 96813
Attn: Mark Hofferbert
Project Name: WGSL Stormwater

Received: 3/21/2012

Completed: 4/6/2012

Project Number: 120321-2568-015

Analysis	QC Test	Results	MDL	Units	GGA Range	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 3/21/2012											
BOD	Blank	0.04	1	mg/L	-	-	-	-	-	-	
BOD	GGA	209	1	mg/L	198±30.5	-	-	-	-	-	Pass

The results are within the control limit range of 198 ± 30.5

Notes:

- B1 Target Analyte detected in method blank was above the method detection limit.
D8 The duplicate exceeded the acceptance limit due to sample matrix effects.
dry Sample results reported on a dry weight basis.
LCS Laboratory Control Standard
M8 The matrix spike was below the acceptance limits. See Blank Spike (LCS)
M9 The matrix spike was above the acceptance limits. See Blank Spike (LCS)
MDL Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
ND Not Detected
NR Not Reported
R8 The LCS recovery was below the acceptance limits.
R9 The LCS recovery was above the acceptance limits.
REC Recovery
RPD Relative Percent Difference



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

CERTIFICATE OF ANALYSIS

Client:	Food Quality Labs 3375 Koapaka Street, G314 Honolulu HI, 96819	Report Date:	04/06/12 13:52
Attention:	Imelda Quarto	Received Date:	03/27/12 09:15
Phone:	(808) 839-9444	Turn Around:	Normal
Fax:	(808) 839-9744	Client Project:	AECOM WGSL Stormwater
Work Order(s):	2C27022		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Imelda Quarto :

Enclosed are the results of analyses for samples received 03/27/12 09:15 with the Chain of Custody document. The samples were received in good condition, at 4.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Ana Carrera For Hai Van Nguyen
Project Manager





Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

2C27022-01 Detension Basin

Sampled: 03/21/12 10:13

Sampled By: client

Matrix: Water

Hexavalent Chromium by IC

Method: EPA 218.6

Batch: W2D0185

Prepared: 03/21/12 12:00

Analyst: mac

Analyte

Chromium 6+

Result

MDL

MRL

Units

Dil

Analyzed

Qualifier

2.3

0.030

1.5

ug/l

5

04/04/12 15:12



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
Detension Basin	client		2C27022-01	Water	03/21/12 10:13
UP Canyon	client		2C27022-02	Water	03/21/12 10:20
Culvert Inlet	client		2C27022-03	Water	03/21/12 10:36

ANALYSES

Hexavalent Chromium by IC



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

QUALITY CONTROL SECTION



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

Hexavalent Chromium by IC - Quality Control

Batch W2D0185 - EPA 218.6

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD RPD	RPD Limit	Data Qualifiers				
Blank (W2D0185-BLK1)					Analyzed: 04/04/12 15:12									
Chromium 6+	ND	0.30	ug/l											
LCS (W2D0185-BS1)					Analyzed: 04/04/12 15:12									
Chromium 6+	4.98	0.30	ug/l	5.00		100	90-110							
Matrix Spike (W2D0185-MS1)		Source: 2D04009-01			Analyzed: 04/04/12 15:12									
Chromium 6+	5.06	0.30	ug/l	5.00	0.0291	101	88-112							
Matrix Spike Dup (W2D0185-MSD1)		Source: 2D04009-01			Analyzed: 04/04/12 15:12									
Chromium 6+	5.15	0.30	ug/l	5.00	0.0291	102	88-112	2	10					



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

29504



3375 Koapaka St., G314
Honolulu, HI 96819
808-839-9444 Fax 808-839-9744

2027022

DATE: _____ PAGE ____ OF ____

CUSTOMER NO. _____ LAB NO. _____

CHAIN OF CUSTODY AND
ANALYSIS REQUEST

CLIENT NAME: FQ Labs EMAIL: melda@fqlab.com

ADDRESS: 3375 Koapaka Street G314

PROJECT NAME: AECOM WGSLS TOWER PROJECT NO.: P.O. NO.:

PROJECT MANAGER: MELDA QUARTO PHONE NO: 808-839-9444 FAX NO: 808-839-9744.

SAMPLER NAME: (Printed) (Signature)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N = NORMAL

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	ANALYSES REQUESTED:				SAMPLE CONDITION/COMMENTS:
				MATRIX	CONTAINER	TYPE	GRAB COMP	
WATER	OTHER	#						
1 23	3/21	10:13	Defension Basin	X	1	P	G X	Chromium (VI) 218.6
2 24	3/21	10:20	UPCANYON	X	1	P	G X	As per incl'dg @ F&Q lab
3 25	3/21	10:36	Culvert Inlet	X	1	P	G X	Samples were pre-filtered and buffered before submitting for
4								
5								
6								
7								
8								
9								
10								

Received By: (Signature and Printed Name)

John Wang, ZHANG, JOHN

Received By: (Signature and Printed Name)

John Wang, JOHN

Received By: (Signature and Printed Name)

John Wang, JOHN

SPECIAL INSTRUCTIONS:

By _____ Date _____
By _____ Date _____
By _____ Date _____

AIRBILL NO: _____ COOLER TEMP: _____
PRESERVED: _____

REMARKS: _____

1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless
additional storage time is requested.
3. Storage time requested: _____ day(s)

Date:

Time:

Date:

Time:

Date:

Time:

Date:

Time:

Food Quality Lab

3375 Koapaka Street, G314
Honolulu, HI 96819
Phone: 808-839-9444, Fax: 808-839-9744

AECOM

1001 Bishop St., Suite 1600
Honolulu, HI, 96813
Attn:Mark Hofferbert
Project Name: WGSL Stormwater
PO No: 6246625.02

CERTIFICATE OF ANALYSIS

Received: 03/21/2012 @ 12:10 PM
Completed: 04/06/2012 @
Project Number: 120321-2568-014
Temperature: 4.0 °C
Client Project No: 6246625.02

Sample ID: 120321-2568-014-01	Water Sample -24 Up Canyon	Sampled: 3/21/2012 @ 10:20 AM			Sampler: Didier Dumas	
Analysis	Results	Units	MDL	Test Method	Analyzed	By
Biochemical Oxygen Demand, 5-day	13.0	mg/L	1.0	SM 5210 B	03/21/2012	LS
Chromium 6+	See Attached	ug/L	0.030	EPA 218.6	04/04/2012	Wec k

Approved By:

Friday, April 06, 2012

Page 1 of 1

14339



3375 Koapaka St., G314
Honolulu, HI 96819
808-839-9444 Fax 808-839-9744

CLIENT NAME: AECOM Technical Services, Inc.

PROJECT NAME: WGSI Stormwater PROJECT NO: **6024662** P.O. NO: **60246625.02**

ADDRESS: **1001 Bishop St, Suite 1600, Honolulu, HI 96813**

PROJECT MANAGER: Mark Hofferhert PHONE NO: **523-8874** FAX NO: **523-8950**

SAMPLER NAME: **Katie Langford** (Printed)

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Ex.) N = NORMAL

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VOA Vial, O = Other:

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX	SOIL	SUSPENDED	OTHER	#	TYPE	ANALYSES REQUESTED:			LAB NO.	FILE NO.	AIRBILL NO: <i>hand written</i>	COOLER TEMP: <i>4°C</i>	PRESERVED: _____	REMARKS: Report to: Betsy Sara (betsy.sara@ testamericainc.com)	
										B	C	O r D V	I	S	M	2	1	8.	
1 25	3/21/12	10:30	Culvert Inlet	X				1	poly	X		X	X						
2																			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Received by (Signature and Printed Name)
Katie Langford

Released by (Signature and Printed Name)

Received by (Signature and Printed Name)

Released by (Signature and Printed Name)

Received by (Signature and Printed Name)
Mary Linton

Released by (Signature and Printed Name)

Received by (Signature and Printed Name)

Released by (Signature and Printed Name)

Date *3/21/12* Time *12:10*
Date *3/21/12* Time *12:10*

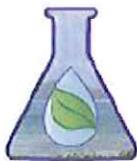
Date *3/21/12* Time *12:10*

Date *3/21/12* Time *12:10*

Date *3/21/12* Time *12:10*

SAMPLE DISPOSITION:
1. Samples returned to client? YES NO
2. Samples will not be stored over 30 days, unless additional storage time is requested.
3. Storage time requested: _____ days

By _____ Date _____



FQLabs

Analysts of Excellence

3375 Koapaka St., Suite G314 • Honolulu, HI 96819 • Tel: (808) 839-9444 • Fax: (808) 839-9744 • fql@fqlab.com

FOOD, WATER, SOIL & ENVIRONMENTAL TESTING & CONSULTING

QC Report

AECOM

1001 Bishop St., Suite 1600

Honolulu, HI, 96813

Attn: Mark Hofferbert

Project Name: WGSL Stormwater

Received: 3/21/2012

Completed: 4/6/2012

Project Number: 120321-2568-015

Analysis	QC Test	Results	MDL	Units	GGA Range	Source Result	% Rec	Rec Limits	% RPD	RPD Limit	Qualifier
Glucose-Glutamic Acid Check (GGA) 3/21/2012											
BOD	Blank	0.04	1	mg/L	-	-	-	-	-	-	
BOD	GGA	209	1	mg/L	198±30.5	-	-	-	-	-	Pass

The results are within the control limit range of 198 ± 30.5

Notes:

- B1 Target Analyte detected in method blank was above the method detection limit.
- D8 The duplicate exceeded the acceptance limit due to sample matrix effects.
- dry Sample results reported on a dry weight basis.
- LCS Laboratory Control Standard
- M8 The matrix spike was below the acceptance limits. See Blank Spike (LCS)
- M9 The matrix spike was above the acceptance limits. See Blank Spike (LCS)
- MDL Method Detection Levels are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- ND Not Detected
- NR Not Reported
- R8 The LCS recovery was below the acceptance limits.
- R9 The LCS recovery was above the acceptance limits.
- REC Recovery
- RPD Relative Percent Difference



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

CERTIFICATE OF ANALYSIS

Client:	Food Quality Labs 3375 Koapaka Street, G314 Honolulu HI, 96819	Report Date:	04/06/12 13:52
Attention:	Imelda Quarto	Received Date:	03/27/12 09:15
Phone:	(808) 839-9444	Turn Around:	Normal
Fax:	(808) 839-9744	Client Project:	AECOM WGSL Stormwater
Work Order(s):	2C27022		

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Imelda Quarto :

Enclosed are the results of analyses for samples received 03/27/12 09:15 with the Chain of Custody document. The samples were received in good condition, at 4.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:

Reviewed by:

Ana Carrera For Hai Van Nguyen
Project Manager





Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Lab ID	Matrix	Date Sampled
Detension Basin	client		2C27022-01	Water	03/21/12 10:13
UP Canyon	client		2C27022-02	Water	03/21/12 10:20
Culvert Inlet	client		2C27022-03	Water	03/21/12 10:36

ANALYSES

Hexavalent Chromium by IC



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

2C27022-02		UP Canyon					
Sampled: 03/21/12 10:20		Sampled By: client		Matrix: Water			
Method: EPA 218.6		Batch: W2D0185		Prepared: 03/21/12 12:00		Analyst: mac	
Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Chromium 6+	20	0.030	1.5	ug/l	5	04/04/12 15:12	



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

QUALITY CONTROL SECTION



Weck Laboratories, Inc.

Analytical Laboratory Service - Since 1964

Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

Hexavalent Chromium by IC - Quality Control

Batch W2D0185 - EPA 218.6

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers				
Blank (W2D0185-BLK1)					Analyzed: 04/04/12 15:12									
Chromium 6+	ND	0.30	ug/l											
LCS (W2D0185-BS1)					Analyzed: 04/04/12 15:12									
Chromium 6+	4.98	0.30	ug/l	5.00		100	90-110							
Matrix Spike (W2D0185-MS1)		Source: 2D04009-01			Analyzed: 04/04/12 15:12									
Chromium 6+	5.06	0.30	ug/l	5.00	0.0291	101	88-112							
Matrix Spike Dup (W2D0185-MSD1)		Source: 2D04009-01			Analyzed: 04/04/12 15:12									
Chromium 6+	5.15	0.30	ug/l	5.00	0.0291	102	88-112	2	10					



Food Quality Labs
3375 Koapaka Street, G314
Honolulu HI, 96819

Date Received: 03/27/12 09:15
Date Reported: 04/06/12 13:52

Notes and Definitions

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

29504



3375 Koapaka St., G314
Honolulu, HI 96819
808-839-9444 Fax 808-839-9744

2C27022

DATE: _____ PAGE ____ OF ____

LAB NO. ____

CLIENT NAME: FQ Labs
ADDRESS: 3375 Koapaka Street G314

EMAIL: melda@fqlab.com

ANALYSES REQUESTED:

AIRBILL NO: _____
COOLER TEMP: _____
PRESERVED: _____

CUSTOMER NO. _____

REMARKS: _____

PROJECT NAME: AECOM WESL Stormwater No:

P.O. NO:

PROJECT MANAGER: MELDA QUARTO PHONE NO: 808-839-9444 FAX NO: 808-839-9744.

SAMPLER NAME: (Printed) _____ (Signature) _____

SAMPLE CONDITION/ COMMENTS: _____

TAT (Analytical Turn Around Time) 0 = Same day; 1 = 24 Hour; 2 = 48 Hour; (Etc.) N = NORMAL

CONTAINER TYPES: B = Brass, G = Glass, P = Plastic, V = VDA Vial, O = Other:

SAMPLE NO.	DATE SAMPLED	TIME SAMPLED	SAMPLE DESCRIPTION	MATRIX			CONTAINER	SAMPLE CONDITION/ COMMENTS: _____
				WATER	OTHER	*		
1 23	3/21	10:13	Detention Basin	X			I P G X	As per Imeldy
2 24	3/21	10:20	UP CANYON	X			I P G X	@ F&Q lab
3 25	3/21	10:36	Culvert Inlet	X			I P G X	Samples were pre-filtered and buffered before submitting for
4								
5								
6								
7								
8								
9								
10								
SAMPLE DISPOSITION:				Date: 3/26/2012	Time: 11:13 am		1. Samples returned to client? YES NO	
				Date: 3/27/12	Time: 0925		2. Samples will not be stored over 30 days, unless additional storage time is requested.	
				Date: 3/27/12	Time: 0925		3. Storage time requested: _____ days	
SPECIAL INSTRUCTIONS:				By _____ Date _____				

Relinquished By: (Signature and Printed Name)

Received By: (Signature and Printed Name)

Date: 3/26/2012

Time: 11:13 am

NO

YES

NO

Relinquished By: (Signature and Printed Name)

Received By: (Signature and Printed Name)

Date: 3/27/12

Time: 0925

NO

YES

NO

Relinquished By: (Signature and Printed Name)

Received By: (Signature and Printed Name)

Date: 3/27/12

Time: 0925

NO

YES

NO

Chain of Custody / Analysis Request Form

Report to:		Project identification		Indicate analyses requested		Laboratory ID no.
Company name AECOM Technical Services, Inc.	Job name WGSL Stormwater	Address 1001 Bishop St., Suite 1600	Job number 60246625_02	Date results needed 2 weeks	Analyses requested 200.7, 245.1 Metals** NO2-NO3 353.2, T, Phos 365.1, NH3 350.1 COD 410.4, T, Nitrogen SM4500N 625 SVOCs*	
City Honolulu	State HI	ZIP 96813	Contact email address mark.hofferbert@aecom.com, margie.thach@aecom.com	No. of containers 1	Sampling Date Method Preservation method Other	No Discharge
Phone 808-523-8874	Fax 808-523-8950	Samples in shipment Katie Langford	Matrix GRAB	Time varies	No Discharge	
Client sample ID Pretention Basin		Delivery method FedEx	Delivery method White - TestAmerica	Condition noted /		
Item no. 101	Page 1	Received by (print / sign) Karen	Company / Agency affiliation TestAmerica	Date / time received 3/3/12 / 0900	Please check one: <input checked="" type="checkbox"/> Dispose by lab <input type="checkbox"/> Return to client <input type="checkbox"/> Archive	
6	2					
7	3					
8	4					
9	5					
10	6					

Comments: * SVOCs: alpha-terpineol, benzoic acid, p-cresol, pentachlorophenol, phenol.

** Metals: As, Cd, Fe, Pb, Hg, Se, Ag, Zn

Food Quality Labs to analyze BOD (SM 5210) and preserve CrVI (218.6); report to TA-Denver (PM: Betsy Sarra).

Chain of Custody / Analysis Request Form

Report to:		Project identification			Indicate analyses requested	
Company name	Mark Hofferbert	Job name	W GSL Stormwater			
Address	AECOM Technical Services, Inc.	Job number	60246625.02			
City	1001 Bishop St., Suite 1600	State	HI			
Phone		Fax	808-523-8874			
Sampler	Kathe Langford	# samples in shipment	1			
Item no.	Client sample ID					
Page	Culvert inlet					
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
Released by (print / sign)	Date / time released	Delivery method	Received by (print / sign)	Company / Agency affiliation	Date / time received	Condition noted
<i>John Langford</i>	3/21/12 2:00	FedEx	<i>Melissa M. Jo</i>	TestAmerica	3/21/12 1:00:00	/
		/			/	/

Comments: * SVOCs: alpha-terpineol, benzoic acid, p-cresol, pentachlorophenol, phenol.

** Metals: As, Cd, Fe, Pb, Hg, Se, Ag, Zn

Please check one:

- Dispose by lab
- Return to client
- Archive

Chain of Custody / Analysis Request Form

Report to:		Project Identification		Indicate analyses requested			
Mark Hofferbert		Job name WGSL Stormwater	Job number 60246625.02				
AECOM Technical Services, Inc.							
Address 1001 Bishop St., Suite 1600	State HI	ZIP 96813					
City Honolulu	Phone 808-523-8874	Fax 808-523-8950	Contact email address mark.hofferbert@aecom.com, margie.thach@aecom.com	Date results needed 2 weeks			
Dunes	# samples in shipment 1						
Client sample ID		Matrix	Sampling	No. of contributors		Laboratory ID no.	
UPCANYON	X	HCl	Time 10:49	2	X	<input checked="" type="checkbox"/> NO	
UPCANYON	X	varies	Time 10:23	6	X	<input checked="" type="checkbox"/> DISCHARGE	
					X	<input checked="" type="checkbox"/> GRAB	
						<input checked="" type="checkbox"/> ONLY	
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
Released by (print / sign)	Date / time released	Delivery method	Received by (print / sign)	Company / Agency affiliation	Date / time received	Condition noted	
<i>Don Diz Dunes</i>	3/21/1	Expedite	<i>M. Hallip</i>	TestAmerica	3/23/21 0900		
	/	/	/	/	/		
	/	/	/	/	/		

Comments: * SVOCs: alpha-terpineol, benzoic acid, p-cresol, pentachlorophenol, phenol.

** Metals: As, Cd, Fe, Pb, Hg, Se, Ag, Zn

Please check one:

- Dispose by lab
- Return to client
- Archive

FIELD INFORMATION FORM



Site Name: DETENTION BASIN
EAST Outfall, NW SL
 Site No.:
 Sample Point: DETENTION BASIN
 Date: 03/21/12

This Waste Management Field Information Form is Required

This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID:

PURGE INFO												
	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOL PURGED						
<i>Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purgd. Mark changes, record field data, below.</i>												
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment ... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N			Filter Device: <input type="checkbox"/> Y or <input checked="" type="checkbox"/> N <u>0.45 μ</u> or <u>μ</u> (circle or fill in)								
	Purging Device <input type="checkbox"/>	A- Submersible Pump	D-Bailer	A-In-line Disposable	C-Vacuum		B-Pressure	X-Other				
	Sampling Device <input checked="" type="checkbox"/> F	B-Peristaltic Pump	E-Piston Pump	Filter Type: <input type="checkbox"/>			C-PVC	X-Other: <u> </u>				
	C-QED Bladder Pump	F-Dipper/Bottle	Sample Tube Type: <input type="checkbox"/>	A-Teflon	B-Stainless Steel	D-Polypropylene						
X-Other: <input type="checkbox"/>												
WELL DATA	Well Elevation (at TOC)	Depth to Water (DTW) (from TOC)			Groundwater Elevation (site datum, from TOC)							
	Total Well Depth (from TOC)	Stick Up (from ground elevation)			Casing ID (in)	Casing Material						
<i>Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.</i>												
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μmhos/cm @ 25 °C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)			
	.....	.....	1 st	.....	.....	.....	.....	.....	.....
	.....	.....	2 nd	.....	.....	.....	.....	.....	.....
	.....	.....	3 rd	.....	.....	.....	.....	.....	.....
	.....	.....	4 th	.....	.....	.....	.....	.....	.....
			
			
			
			
			
			
			
Suggested range for 3 consec. readings or note Permit/State requirements: <u>+/- 0.2</u> <u>+/- 3%</u> <u>-</u> <u>--</u> <u>+/- 10%</u> <u>+/- 25 mV</u> <u>Stabilize</u>												
<i>Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.</i>												
FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other: _____				
	03/21/12	8.35						Units _____				
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).												
FIELD COMMENTS	Sample Appearance: <u>Cloudy</u>	Odor: <u>no odor</u>			Color: <u>brownish</u>			Other: <u> </u>				
	Weather Conditions (required daily, or as conditions change):	Direction/Speed: <u>no flow</u>			Outlook: <u>cloudy</u>			Precipitation: <u>Y</u> or <u>N</u>				
Specific Comments (including purge/well volume calculations if required):												
<p><u>There is no discharge throughout the sampling process. Grab samples are collected at the east outfall (at the detention basin). There was no flow from the outfall. Sampling time: 10:13 am</u></p> <p><u>(still) water depth at east outfall: 1 inch @ 10:05 am</u></p> <p><u>(still) water depth at west outfall: 2 inch @ 10:07 am</u></p>												
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):												
03/21/12	Yue DIA											
03/21/12	Katie Langford											
Date	Name	Signature						Company				
DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy												
Page 104 of 107												
TAL-8029WM (0108)												

FIELD INFORMATION FORM



Site Name: Culvert Inlet, WBSL
 Site No.: Sample Point: Culvert Inlet
 Sample ID:

This Waste Management Field Information Form is Required

This form is to be completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).

Laboratory Use Only/Lab ID: _____

PURGE INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOLs PURGED			
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Parged. Mark changes, record field data, below.									
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment ... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N			Filter Device: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N 0.45 µ or _____ µ (circle or fill in)					
	Purging Device <input type="checkbox"/>	A- Submersible Pump B-Peristaltic Pump C-QED Bladder Pump	D-Boiler E-Piston Pump F-Dipper/Bottle	Filter Type: <input type="checkbox"/>	A-In-line Disposable B-Pressure C-Vacuum X-Other: _____				
	Sampling Device <input checked="" type="checkbox"/> X-Other: <input type="checkbox"/>	Sample Tube Type: <input type="checkbox"/>			A-Teflon B-Stainless Steel	C-PVC X-Other: _____ D-Polypropylene			
WELL DATA	Well Elevation (at TOC) <input type="checkbox"/>	Depth to Water (DTW) (from TOC) <input type="checkbox"/>	Groundwater Elevation (site datum, from TOC) <input type="checkbox"/>						
	Total Well Depth (from TOC) <input type="checkbox"/>	Stick Up (from ground elevation) <input type="checkbox"/>	Casing ID <input type="checkbox"/> (in) Casing Material <input type="checkbox"/>						
Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.									
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock) <input type="checkbox"/>	Rate/Unit <input type="checkbox"/>	pH (std) <input checked="" type="checkbox"/> 1 st <input type="checkbox"/> 2 nd <input type="checkbox"/> 3 rd <input type="checkbox"/> 4 th <input type="checkbox"/>	Conductance (SC/EC) (µmhos/cm @ 25 °C) <input type="checkbox"/>	Temp. (°C) <input type="checkbox"/>	Turbidity (ntu) <input type="checkbox"/>	D.O. (mg/L - ppm) <input type="checkbox"/>	eH/ORP (mV) <input type="checkbox"/>	DTW (ft) <input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suggested range for 3 consec. readings or note Permit/State requirements:		+/- 0.2	+/- 3%	-	-	+/- 10%	+/- 25 mV	Stabilize	
Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.									
FIELD DATA	SAMPLE DATE (MM DD YY) <input type="checkbox"/> 03/21/12	pH (std) <input type="checkbox"/> 8.41	CONDUCTANCE (umhos/cm @ 25°C) <input type="checkbox"/>	TEMP. (°C) <input type="checkbox"/>	TURBIDITY (ntu) <input type="checkbox"/>	DO (mg/L-ppm) <input type="checkbox"/>	eH/ORP (mV) <input type="checkbox"/>	Other: _____ Units: _____	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).									
FIELD COMMENTS	Sample Appearance: <u>Cloudy</u>		Odor: <u>No odor</u>		Color: <u>light brown</u>		Other: <u>—</u>		
	Weather Conditions (required daily, or as conditions change):		Direction/Speed: <u>no flow</u>		Outlook: <u>Shady</u>		Precipitation: <u>Y</u> or <u>N</u>		
	Specific Comments (including purge/well volume calculations if required): <u>There is no discharge throughout the sampling process. Grab samples are collected at the culvert inlet. Water depth at the inlet is 4.5 inch.</u> <u>There is no flow at the culvert.</u> <u>Sampling time = 10:36 am.</u>								
	I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):								
<u>03/21/2012</u> <u>3/21/12</u> Date	<u>YUE QIU</u> <u>Ergenfed</u> Name	<u>01</u> <u>katie J. Langford</u> Signature	<u>AECOM</u> <u>AECOM</u> Company						
DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy Page 105 of 107									

FIELD INFORMATION FORM

Site Name: WSL UP CANYON
 Site No.: Sample Point: UP CANYON
 Sample ID:

This Waste Management Field Information Form is Required

This form is to be Completed, in addition to any State Forms. The Field Form is submitted along with the Chain of Custody Forms that accompany the sample containers (i.e. with the cooler that is returned to the laboratory).



Laboratory Use Only/Lab ID:

PURGE INFO												
	PURGE DATE (MM DD YY)	PURGE TIME (2400 Hr Clock)	ELAPSED HRS (hrs:min)	WATER VOL IN CASING (Gallons)	ACTUAL VOL PURGED (Gallons)	WELL VOL PURGED						
Note: For Passive Sampling, replace "Water Vol in Casing" and "Well Vols Purged" w/ Water Vol in Tubing/Flow Cell and Tubing/Flow Cell Vols Purged. Mark changes, record field data, below.												
PURGE/SAMPLE EQUIPMENT	Purging and Sampling Equipment ... Dedicated: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N				Filter Device: <input checked="" type="checkbox"/> Y or <input type="checkbox"/> N	0.45 μ	or	μ	(circle or fill in)			
	Purging Device	A-Submersible Pump	D-Bailer	A-In-line Disposable	C-Vacuum							
	Sampling Device <input checked="" type="checkbox"/> F	B-Peristaltic Pump	E-Piston Pump	B-Pressure	X-Other							
X-Other:	<u>Glass amber & Poly bottles</u>				Sample Tube Type: <input checked="" type="checkbox"/> N/A	A-Teflon	C-PVC	X-Other:				
WELL DATA	Well Elevation (at TOC)	Depth to Water (DTW) (from TOC)				Groundwater Elevation (site datum, from TOC)						
	Total Well Depth (from TOC)	Stick Up (from ground elevation)				Casing ID	(in)	Casing Material				
Note: Total Well Depth, Stick Up, Casing Id, etc. are optional and can be from historical data, unless required by Site/Permit. Well Elevation, DTW, and Groundwater Elevation must be current.												
STABILIZATION DATA (Optional)	Sample Time (2400 Hr Clock)	Rate/Unit	pH (std)	Conductance (SC/EC) (μ mhos/cm @ 25 °C)	Temp. (°C)	Turbidity (ntu)	D.O. (mg/L - ppm)	eH/ORP (mV)	DTW (ft)			
	1 st	1 st	1 st	1 st	1 st	1 st	1 st	1 st	1 st			
	2 nd	2 nd	2 nd	2 nd	2 nd	2 nd	2 nd	2 nd	2 nd			
	3 rd	3 rd	3 rd	3 rd	3 rd	3 rd	3 rd	3 rd	3 rd			
	4 th	4 th	4 th	4 th	4 th	4 th	4 th	4 th	4 th			
	5 th	5 th	5 th	5 th	5 th	5 th	5 th	5 th	5 th			
	6 th	6 th	6 th	6 th	6 th	6 th	6 th	6 th	6 th			
	7 th	7 th	7 th	7 th	7 th	7 th	7 th	7 th	7 th			
	8 th	8 th	8 th	8 th	8 th	8 th	8 th	8 th	8 th			
	9 th	9 th	9 th	9 th	9 th	9 th	9 th	9 th	9 th			
Suggested range for 3 consec. readings or note Permit/State requirements: +/- 0.2 +/- 3% -- +/- 10% +/- 25 mV Stabilize												
Stabilization Data Fields are Optional (i.e. complete stabilization readings for parameters required by WM, Site, or State). These fields can be used where four (4) field measurements are required by State/Permit/Site. If a Data Logger or other Electronic format is used, fill in final readings below and submit electronic data separately to Site. If more fields above are needed, use separate sheet or form.												
FIELD DATA	SAMPLE DATE (MM DD YY)	pH (std)	CONDUCTANCE (umhos/cm @ 25°C)	TEMP. (°C)	TURBIDITY (ntu)	DO (mg/L-ppm)	eH/ORP (mV)	Other:				
	03/21/12	8.30						Units				
Final Field Readings are required (i.e. record field measurements, final stabilized readings, passive sample readings before sampling for all field parameters required by State/Permit/Site).												
FIELD COMMENTS	Sample Appearance:		Odor:		Color:		Other:					
	<u>Muddy water</u>		<u>None</u>		<u>Brown</u>		<u>-</u>					
Weather Conditions (required daily, or as conditions change):		Direction/Speed:		Outlook:		Precipitation:						
Specific Comments (including purge/well volume calculations if required): <u>Grab Samples up canyon in muddy water.</u> <u>No Discharge</u>												
I certify that sampling procedures were in accordance with applicable EPA, State, and WM protocols (if more than one sampler, all should sign):												
03/21/12	Dave Haasberger			<u>D. Haasberger</u>			AECOM					
03/21/12	YUE QIN			<u>Qin</u>			AECOM					
Date	Name	Signature				Company						
DISTRIBUTION: WHITE/ORIGINAL - Stays with Sample, YELLOW - Returned to Client, PINK - Field Copy												
Page 100 of 107												

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-26964-1

Login Number: 26964

List Source: TestAmerica Denver

List Number: 1

Creator: Philipp, Nicholas A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	NO DATE/TIME FOR SAMPLE 1
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	